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6 January 1986

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PANEL DISCUSSES OPTIONS, PROBLEMS OF TROUBLED ENTERPRISES

Budapest NEPSZABADSAG in Hungarian 16 Nov 85 p 5

[Interview with Gyula Csaki, deputy finance minister, Gabor Kelenyi, deputy secretary-general of the Hungarian Chamber of Commerce, Attila Lorinczi, managing director of the Lang Machine Factory, Laszlo Soltesz, vice-chairman of the Hungarian National Bank, Ferenc Szabo, managing director of the Danube Iron Works, and Otto Zalatnay, managing director of the Hungarian Cloth Factory by Katalin Bossanyi; date and place not specified.]

[Text] On the basis of last year's management 168 industrial, construction industry and commercial organizations found themselves in a difficult situation; more than 80 percent of the deficit was concentrated in large, industrial enterprises. How great is the scope of the troubled enterprises? How can they find their way out of the difficulties--with what efforts of their own or state help? We talked about these questions with the leaders of several typical large enterprises and with representatives of higher authorities and various interest groups.

[NEPSZABADSAG] In respect to their ratio how great was the number of those enterprises which were in trouble, and how will present-day methods of dealing with the losses affect the progress of the other organizations?

[Csaki] In itself the ratio and extent of enterprises that are in the red or short of money is not great by international comparison: the total amount devoted to direct financial settlement has been about 10 billion forints annually in the past period. But this is only the tip of the iceberg. If we include those operating at a low level, of efficiency, organizations maintained at level by means of supports, and those in a difficult situation for other reasons, we are speaking of a considerably larger and virtually permanent enterprise circle. As a consequence of the stricter regulation and tensions prolonged from earlier years the extent of the deficit, according to our estimates, will increase this year by 15 to 20 percent, and the circle of those affected will also expand considerably. The same trend can be observed in economic units with a fund shortage, and the number of those operating at low efficiency is expanding to about 100 enterprises. It is, of course, natural in an economy open to market influences that the profitability position of the enterprises should be differentiated. In itself, it does not cause socio-economic tension that a range of troubled enterprises should develop. The biggest problem is caused by the fact that these deficits must be covered by the central budget, and in the present circumstances this can only

be done with withdrawing revenues from efficiently operating enterprises: and the ratio of budgetary centralization grows, a state behavior that can justifiably be criticized. Thus in the final analysis the present financial settlement of those operating at a deficit reacts on and limits our whole economic development.

[Soltesz] The number of those struggling with fund shortages is substantially larger than this and shows a growing trend. Only the shortage is not always evident because the bank--if it sees a hope that an enterprise will be able to make up the fund shortage from its own resources--will prolong the credits. Most of the enterprises that are assisted in this way will satisfy the conditions but at a tremendous price. In years they will put themselves in order financially as far as the balance is concerned, but they will be completely "stripped bare;" they will not have money even to maintain their level. And then it is no wonder that after 2 or 3 years they will be on the rehabilitation list. This is a real danger and the longer it takes us to recognize it and come to terms with it the greater the social loss of capital.

[NEPSZABADSAG] There are three enterprises present here which are in difficult circumstances, although to various degrees. As you see it, what were the causes that led to the development of your problems?

[Lorinczi] There were and are internal management problems at the Lang Factory, and also we adopted the market outlook too late. But still the greatest tension is caused by the fact that the ground slipped from under our most important products. At central instance and with bank money we developed chemical industry and atomic energy machine manufacture, and we were the first to take export development credit for the modernization of turbine manufacture. These capital burdens weigh on us, but we cannot use our capacities profitably. The atomic energy program of the CEMA countries is behind schedule, we have not received any turbine orders for domestic power works since 1978, and without references exports are not possible. We can use our technologies for other kinds of manufacture only with difficulty and with new losses, and this too requires time. Therefore the Ministry of Industry has ordered the rehabilitation of the enterprise.

[Zalatnay] The textile industry is in a unique situation throughout the world, and our situation is made even more difficult by our delayed developments and manpower problems. The Hungarian Cloth Factory saw the establishment of provincial industries as one of the keys to the solution of the problem. These additional costs and an erroneous development program--for which I also feel a personal responsibility--led to the earlier deficits. We have now passed beyond the dead point--our products are in demand both at home and abroad--but our profits are still too small. A role is played in this by the fact that on the basis of our export prices we could raise our domestic prices, but for various reasons we are slow in having this possibility granted. Let me note that our FRG cooperation partner is working with a smaller profit rate than we are, but is doing well.

[Szabo] The Danube Iron Works is not in the red, does not have a fund shortage, and still is struggling with serious problems. I believe that our evaluation is also erroneous: we are classified as a crisis subbranch, but we still cannot make as many products as the domestic market demands. That is, the fault is not with the demand but with the profit! What profit we do make

is not enough to repay the loans on our enormous metallurgical investments. It is true that nowhere in the world are these investments realized from bank loans. The profitability of our production is also trimmed by poor ore quality. While energy costs are increasing, we are continuing to sell our products 16 to 20 percent below world market prices. I do not agree at all with the idea that we must improve the competitiveness of the machine industry onesidedly by means of a depressed basic material factory!

[Csaki] These external problems are real. But let us not forget that external and internal difficulties are in reciprocal relation. It is questionable to what extent the troubled enterprises are exploiting their own possibilities. It is not possible to solve the present tensions merely by passing on costs and raising prices--even if the management rules of the game were to give scope to this--because this would merely roll the deficits over within the industry. And the price would be paid by the consumer, and our living standards would be harmed. In my view, we can point behind the whole phenomenon to a slow market adjustment and to a low revenue-producing capability.

[NEPSZABADSAG] What is the ratio between the external and internal causes?

[Soltesz] The external and internal causes vary by enterprise, but perceptibly most of the problems have been caused by erroneous investment decisions. In addition, the goal or the mode of realization was not mistaken in every case. In weighing this matter and in assessing responsibility, we must consider that the credits were accepted under entirely different regulation conditions than those under which they must now be repaid. And this is not only true of the funds, for the enterprises with liquidity problems still bear a 20 percent penalty tax on their circulating asset credits. And thus the troubled enterprises are going deeper into trouble. I think that while we rightfully castigate inflexibility and an enterprise attitude suited for stockpiling and waiting it out, we must at the same time--by improving regulation--create the conditions for their better adjustment.

[Kelenyi] The demand is great for the products of many troubled enterprises, and therefore the problems cannot be ascribed unconditionally to market tensions; often it is their unstable financial situation that prevents them from meeting real market demands. It is an important problem: the development of profit does not really show the activity of a given organization! It can be shown that the difficulties of some of the troubled enterprises stem from inconsistencies of management and increased state withdrawals. The enterprise area of mobility is narrowing! Among those which are recurrently in trouble there are many which expanded, took risks, and sell a significant ratio of their products on foreign markets. Whereas others which chose the path of "considered advance" are doing well today.

[Csaki] If we let ourselves get stuck on what others should do, we will make no progress. Undoubtedly, regulation also--for reasons of necessity--will in some cases narrow the enterprises' possibilities for action. As I see it, however, many do not even take advantage of that area of mobility which is available to them!

[Soltesz] I agree, but the general economic environment makes it difficult at present to overcome the difficulties. I am thinking, for example, of the fact

that we rehabilitated several enterprises under very hard conditions. They dealt with the consequences, but in their strained situation, they were unable to bear the additional burdens of the new modifications in regulation. Several independent Csepel enterprises and even Tungsram are now for these reasons struggling with new problems. We should strive to see that the tensions arise at those organizations which are themselves the cause of the tensions. In this way both responsibility and the mode of handling could be better defined.

[NEPSZABADSAG] Earlier, if a large enterprise was in trouble, it solved the problem by acquiring itself a new "tabula rasa" beginning, or by amalgamation. In recent years, however, the state has rightfully put more strict conditions on financial settlement. What kind of solutions do those who are present turn to in order to improve their situation from their own resources, and in return what do the superior authorities demand?

[Zalatnay] The Hungarian Cloth Factory does not ask for outside help, but it received useful advice from the Hungarian National Bank that we accepted. We covered most of our losses by selling those factories that were causing the losses, or by selling that part of our main factory which was not being used because of manpower problems. We want to increase our profits by expanding the scope of our more competitive products, and by a rapid product change. To do this, we had to carry out developments: we bought used machinery with the cooperation of the Bank.

[Szabo] Product change has also been accelerated at the Danube Iron Works, quality has been improved, but if we want to replace unprofitable products we have to undertake developments. It appears there will be no money for this purpose in the near future, and that will mean imports. It must be considered by the national economy what is best for the country: expansion of domestic production or capitalist imports. And it must also be decided whether we need an iron foundry of this size and structure and if we do then we have to create the operational conditions. The superior authorities and the specialized ministry are debating whether we should first submit our technical development concepts. But without knowing the financial conditions this would be only a superficial approximation. We are not asking for special judgment but for a setting of prices and the opportunity to realize our development in the form of state capital allocations and in return for premium payments.

[Lorinczi] I am convinced that it depends primarily on our own improving work what confidence we may enjoy for continued help. The Lang Factory has tried various things, among others we are exploiting our unused capacities. But without a financial arrangement we cannot make progress because we even need funds for everyday work. We want to accelerate our product change, but it is not possible to come up with something just like that to replace turbines. Not merely for traditional reasons we would also like to save our turbine manufacture for more favorable days.

[Csaki] The Lang Machine Factory case illustrates that a financial arrangement can solve the problems only superficially. For a comprehensive structural transformation--that is, for permanently profitable operation--we need a new scope of activities and markets, which no one but us can search for. Since the rehabilitation of the enterprise is in process I do not want to anticipate the decision. But it is in fact an industrial policy question whether we shall have or not have turbine manufacture! The Ministry of

Industry is now studying this matter. If the salvage operation places such burdens on the budget as are not acceptable in the present situation, a decision may be made that is unfavorable to the enterprise. Putting iron metallurgy into order on a subbranch scale again raises another problem and the mode of handling that is spiralling in its effects. With the limitation that under the label of operating capability it is not possible to ask for conditions differing from the general.

[NEPSZABADSAG] "A stitch in time saves nine" goes the old proverb. But our decisions on financial arrangements up to now have been prolonged in coming--or lead only to partial solutions--and this too may cause new sources of deficits. What do you think of this?

[Szabo] In Western Europe they brought radical solutions to iron metallurgy by state means. In Hungary, however, we have remained uncertain for the past 5 years. We are speaking of the fate of 60,000 men whom it is very difficult under such circumstances to stimulate to greater achievements.

[Lorinczi] At the recommendation of the Ministry of Finance and the Bank we prepared a so-called screening program with the help of a foreign planning firm. The analysis shows that we need time to realize a program emerging from our difficulties. But without a decision we cannot plan.

[Soltesz] We really cannot keep the enterprises in a state of "economic emergency" for a long period of time, and therefore it is necessary that decisions be made as soon as possible. But it is also evident that to solve the many-layered and far-reaching tensions the path does not lie only and unconditionally through financial arrangements. We also have to understand that the rapid settlement of cases involving troubled enterprises frequently conflicts with social and area obstacles, with group and personal interests and their real or fancied concerns, in reaction to which we are inclined to magnify into political questions those problems which can be solved without tensions in the economic area. The prolongation over the years of the termination of the Hat Factory and the Office Equipment Enterprise also involved arguments like this, and the end of it was that liquidation cost the economy much more than if necessary steps had been taken in time.

[Csaki] In the debates of the various trade interest groups the time factor is present sometimes in opposition to realistic deliberation and solutions, although by saying this I do not wish to devalue the role of rapid and resolute decisionmaking. But we must consider that if an enterprise and subbranch strategy viable over the long run is not paired with a financial settlement, we will only continue to multiply our problems. We should finally be aware that the central budget is not a bottomless sack from which everyone may take what he likes.

[NEPSZABADSAG] It is evident from our conversation that both those affected by and those participating in decisionmaking are unsatisfied with our methods for financial settlement. With the further development of economic management and the widening of market relations how will the inventory means for settling the affairs of troubled enterprises be modernized and expanded?

[Soltesz] Independently of whether the Hungarian National Bank participates directly or indirectly, all financial settlements at present are made at the

cost of the central budget. With the modernization of the bank system there will be commercial banks which not only extend credits to various undertakings but also participate in business operations with risk money and thus share in the profits as well as the losses. Of course, we also want to improve our traditional credit practice. Among other things we would expand--for example, to export oriented developments--the scope of the criteria for World Bank credit applications and the methods of evaluating them. Parallel with this--and next year's regulation modification will give incentives to this end--we want to help in easing the problems of troubled enterprises by speeding up capital circulation, and of course chiefly in helping to strengthen the enterprises that are doing well. I regard it as an important step forward that we are revising the regulations for the system of fund and capital allocations. By this means it will be possible to moderate not only the difficulties of a limited number of enterprises carrying out developments that require large amounts of credit and have a slow rate of return, but security transactions will also be accelerated and a capital market may develop which can evaluate enterprise performance with greater certainty.

[Kelenyi] Up to now if an enterprise had serious economic problems, two things might happen: the state would either rehabilitate or liquidate it. But there is also an in-between solution, an agreement, for example. In this process the Hungarian Chamber of Commerce is willing to undertake the role of mediating and reconciling the interests.

[Csaki] The central budget is trying to reduce its role in undertaking rehabilitation costs. To this end, among other things, we are seeking to develop an institutional system whereby it would not be the state that was in confrontation with the enterprises, but the customer with the supplier, the debtor with the creditor. A compromise could even be arrived at in the course of the debates: the Hungarian Chamber of Commerce could establish the forum at the first stage. It would also be justified in time to establish a specialized organization for this purpose. In exceptional cases and in the framework of a modernized state rehabilitation procedure there would be a continuing possibility for central settlement of the losses, or a part of them. But in these cases, too, we would endeavor to reestablish the bases not only for assisting operational capability but also for creating profitable activity in the future. Obviously there will also be organizations whose management could be put in order only at great--and nonconvertible for a foreseeable time--cost to the state. These must be liquidated! But the decision in such cases, too, will affect only the organization or profile. The capital means can be used, the manpower retrained, or the activity may be modified at the site itself.

[NEPSZABADSAG] Thank you for the conversation.

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COMMENTS ON RATIONALE OF PERSONAL INCOME TAX

Budapest MAGYAR NEMZET in Hungarian 18 Nov 85 p 5

[Excerpt] Tax is part of the income of the national budget and thereby also part of the redistribution of national revenues. But who should care? First of all, the economic organizations, of course. In the opinion of the experts, the work of these organizations warrants a great deal of improvement, their omissions have been coming to light lately, they are not devoting sufficient care to the accuracy of their published data. But the taxpaying citizens must also care. Their current number is around 1,200,000. (Not everyone pays taxes: we don't pay tax after wages earned at an enterprise but we pay retirement contributions. These are two different things.) Well, they no doubt read with great attention the reports about modification of the general income tax. It was decided a few days ago by the government that the income taxation system of the population must be modernized!

The goal of the changes remains the establishment of a more equitable sharing in the public burden. A few weeks from now, as of 1 January, one form of taxation—for municipal development—will be abolished and, in the words of the communique issued after the governmental meeting, "this would result in a substantial lowering of the general income tax burden." This is not justified in the case of taxpayers with high income. Therefore, "a moderate redistribution of the tax burdens became necessary."

What does this mean? In essence, the taxes of people with lower incomes will decrease while the tax burdens on higher incomes will further increase in the future. According to estimates by the Ministry of Finance, there will be about 60,000 people paying higher taxes in the future. The overwhelming majority of the 200,000 small business operators and craftsmen, 195,000 of them, will benefit, their taxes will be lowered and assumedly only 5,000 of them will pay higher taxes. For annual incomes below 200,000 forints, the tax rate will be lower than before. This week a press conference was held at the Ministry of Finance where the substance of the changes was made public. Among others, it was also pointed out that the manner in which the previous exemptions are being modified is also a very important part of the new regulations. For example, the amount of social exemption, affecting the aged or disabled taxpayers, is increased from the previous annual income limit of 40,000 forints to 60,000. The amount that can be exempted by the local councils to the benefit of entrepreneurs such as small craftsmen, small retailers, those working

under contract and paid contract wages was increased more than two-fold from 50,000 to 120,000 forints per year. The obvious goal of the measure is to further improve the supply and raise the entrepreneurial spirit.

Not only the general income tax will be changed next year but the procedure of tax management will also be modified. Larger entrepreneurs, economic work partnerships and those reaching a net annual income of 500,000 forints will be subject to self-taxation. In other words, they will keep track of all of their income and expenses item by item, will fill out a tax return and will pay accordingly. There is no broad segment involved; according to the data from the ministry, about 600 taxpayers will be involved and thus it will be possible to get an itemized account from all of them every year. In their case, tax-morality has an obvious relevance.

The majority of the taxpayers, in technical terms those having small or middle incomes, can choose between paying a flat rate or filling out a tax return. If they choose the former, they will have to reach deeper into their pocket; on the other hand, they will have nothing to do with the internal revenue service for three years...

This form of taxation is described in the information provided by the ministry as follows: here also, "higher taxation of saliently high incomes cannot be renounced. The regulation provides for correction and, failing all else, an assessment of tax liability."

In conclusion, one more from among the changes to take effect next year. At the end of summer or in early fall, that is, after the close of the tax assessment period, a new office, the Tax Assessment Office, will come into being. This will belong under the council machinery everywhere and its function will also include provisions for increased tax control.

These are roughly the changes. Obviously the details will be checked by all those affected since everyone is curious what effects the modifications will have for him. An old dispute is also nearing an end. No one has accepted and no one has thought it right that, with respect to taxation, there was a sign of equality between the small craftsman and the sculptor, the entrepreneur and the author, the boutique owner and the textile designer. The new system takes into account the peculiar nature of intellectual accomplishment and also that these professionals have different "overhead expenses" from others. The concept is also somewhat more complex and more abstract here than elsewhere. Therefore, authors, composers, producers and lecturers, among others, will be taxed on a 35-percent tax basis up to 400,000 forints in annual income and on a 50-percent basis over that. Individuals performing extra work on the basis of a commission will also experience changes. Starting next year, if the fees received for such work are under 1,000 forints, they will not be added; they will not appear in the tax base. On the other hand, instead of the current 2 percent, these people will pay three times as much, 6 percent in certain cases.

According to classical economics, taxation can appear in several forms. It can also appear in the form of curtailments and built into the prices. Obviously the former is better. Individual incomes can also be regulated by

modifying prices, wages and social benefits. It is again obvious here that the most expedient is to regulate at the source, at the place where incomes arise. All of it reinforces the rationality of reasonable changes in the taxation system. With more or less afterthought, everyone agrees. Care must be taken, however, not to strengthen contrary interests. These days one hears of small craftsmen, recently even of GSK's [work associations] who quit working at a certain time of the year, by no means near the end of it: they "become sick" or take a vacation--in other words, they don't work because it is not worth their while. Earning a little more would be too costly for them. Namely, their taxes would skyrocket. Reading the housing advertisements, no one is surprised any more at numbers in the millions. Sooner or later incomes in the upper six figures will also become "routine." If they can be earned honestly, it is obviously attractive. But it will immediately cease to be attractive if for 500,000 forints, the tax bite is 50 percent of the total amount and above 900,000 forints it is three-fourths of the total. Of course, I know, for the time being many of us are not faced with the danger of having to pay 75 percent of our money on taxes. A sizable sum. But still... "Oh, if I too, I too could be amongst you...."

2473/12859

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LIMITS OF HONEST PROFIT DISCUSSED

Budapest MAGYAR NEMZET in Hungarian 28 Oct 85 p 4

[Interview with Dr Imre A. Wiener, associate of the Institute of State and Legal Sciences of the Hungarian Academy of Sciences: by Istvan Javorniczky "Everything Has Its (Sur)Price, or How Much Profit Is Decent?"]

[Text] [Question] Among criminal activities connected to economic life, there are those that have always existed and will continue to exist, while there are numerous others that disappear along with the social circumstances that are responsible for their coming into being. Corruption is one of the activities that is always "persecuted." Are we talking about an unavoidable phenomenon of human society?

[Answer] In fact, this appears to be the case, although, if we look at today's two social systems, we can detect significant differences. While in the West, where there is surplus and genuine competition in the market place, the seller corrupts in order to move his commodity, in our country the hapless consumer runs after the merchandise and pays, just so he can obtain certain products. It is also a significant difference that while in Western countries large payoffs are typical, in our country many small payoffs occur. Exactly how many, it is difficult to say, because corruption is the most typical example of latent criminality. At the same time, it must be realized that, like it or not, corruption also exerts a stimulating influence on economic life. Criminal law, however, cannot deal with this fact; its task is to prevent and mete out punishment for activities proscribed by law. For example, if a cooperative cannot complete a job it undertook, because there is no material, what will they do? They will pay a bribe, that is, they will corrupt someone, in order to be able to work. If this comes out, the cooperative will be censured.

What Is Left Is Punishment

[Question] This, of course, confuses people's developed value system somewhat, as to when and what is allowable and who is allowed to do it. But before expressing your opinion concerning that, please tell us about those new phenomena that, resulting from the newest developments in economic life, also come under the aegis of criminal law.

[Answer] There are cases in which those legal sanctions are absent that would serve to protect the new economic forms and cleanse them of aberrations preventing them from reaching the desired goals. We hear of manipulations taking place, but on the one hand they are difficult to prove, while on the other hand, since there are no legal precedents, nothing can be done. An example for this may take place during the bidding for a contract: one of the bidders may bribe his competitors to drop out of the bidding. Or an enterprise may invite bids for a contract, but it sets the conditions in such a manner that the outcome of the bidding is clear. Hungarian jurisprudence used to have regulations to guarantee the honesty of competition and to prevent corruption. In time, however, these laws have been declared inoperative, because the basic social and economic conditions were missing.

[Question] Is criminal jurisprudence required to deal with phenomena of such an economic nature?

[Answer] There is no choice. Within the state and cooperative sectors, accountability within the provisions of labor law could be an effective method for dealing with these problems, but as soon as we provide room for private initiative, we cannot rely on this method. In cases of corruption, civil law would have difficulty proving responsibility: How could someone prove that he would have won the bidding if it had been honest? As the independence of the enterprises increases, there are even fewer opportunities for calling people to account within the provisions of labor law, because under the new management system, it is unclear when a ministry can initiate a disciplinary process against a plant director. As the management system is transformed, the only recourse remaining is criminal punishment.

[Question] This sounds a little strange, considering that for years we have been celebrating the fact that a number of economic activities are no longer threatened by legal sanctions...

[Answer] During the time of direct economic supervision by the state, the role of criminal law was different than today. Enterprises received their instructions from the center, and there was only one criterion: did it comply or not? Lawyers were not allowed to consider whether the enterprise's activity was useful for society or not. Tens of thousands of people have been convicted, because they did not fulfill the plans or did not satisfy the requirements of compulsory delivery of agricultural goods. Criminal law can only be blamed for not upholding its own rules. But if there prevails an economic policy according to which it is wrong for one to butcher one's own farm animals, then the judge can do only one thing, bring sentence in accordance with the existing laws. Nowadays the role of criminal law is entirely different: Its purpose is not to force the accomplishment of a concrete achievement, but rather to protect the system of conditions created by our economic policies. This is a task it is capable of accomplishing. However, criminal punishment cannot assure that people do their jobs well; at the most, it can be ascertained that those who have no expertise in a field of endeavor stay away from it. These days, much emphasis is placed on stimulating profitability. If an enterprise does not pay its state taxes because its profits have fallen below the predetermined level, criminal law cannot take any action. However, if a certain profit level was reached, and the enterprise

attempts to evade paying taxes by manipulating the figures, there is room for legal action. In the past, enterprises used to play fast and loose with the average wages, such as underpaying their employees. Today, one of the practices prevailing is the transfer of already completed tasks from one plant or enterprise to another, less profitable one, thus evading the payment of taxes.

What Is Lacking

[Question] From this example one can also surmise that perhaps the alteration of economic regulation may be more effective than the sanctioning of the enterprises' defensive mechanism, which may have been caused by other reasons than mere lawlessness. Also, the question may arise: Won't the intervention of criminal law hinder economic progress? I am referring, for example, to the much debated practice of business speculation.

[Answer] The legal definition of speculation is so generally stated that it could include everything. The truth is that there are few cases involving speculation; criminal law moves slowly, because it is uncertain as to the correctness of its methods in any given area. In order to change this situation, the lawyers should be familiar with the prevailing economic policies, but one of the major strengths of that branch of jurisprudence is its stability. Another worry is that it is up to the judge considering the concrete case, what he considers speculation. In the past it used to be simpler; if someone made an disproportionately large amount of money, this was referred to as income earned without work. Today, on the other hand, profitability is an important consideration. However, this is only effective if a well-developed parallel taxation system also exists. In our country, such a system and the requisite professional apparatus are absent.

The source of the confusion is that they attempt to syphon off excessive income, which should be the task of the taxation system, by the application of criminal law. People working in the justice system utilize, as an aid in performing their tasks, the old principle that disproportionately large incomes are not derived from work, and thus these types of incomes are reprehensible. However, criminal law cannot draw the line between an acceptable and unacceptable amount of income. A few years ago there was a case in which people were tried because they brought computers into the country and sold them through the network of state-operated pawnshops. Everything was done in a completely legal manner, but, on the pretext that the individuals involved made outlandish profits, they were sentenced. Since that time the state has found an effective solution for this; by altering the customs regulations, it is able to remove some of the extremely high profits that are obtainable in these kinds of transactions. I do not have to tell you how much more effective this method is than the practice of dragging people before the courts on the pretext of speculation.

[Question] By permitting new economic practices, many of the private entrepreneurs, formerly threatened by imprisonment, see legal opportunities opening before them.

[Answer] Yes. Now the problems are more likely to derive from operating enterprises in a manner different than originally declared. Phony firms are created, in which profits are created by simple accounting maneuvers. These can be countered by administrative means, but the further development of the economic mechanism could be even more effective, because it is obvious that under the conditions of genuine market and competition oriented economy the consumers would not tolerate inflated prices. As an example, the anomalies of vegetable commerce could not be solved by administrative means, let alone by those of criminal law.

Only the Exceptions

[Question] In any event, it does not reinforce people's sense of justice that at times someone is sentenced for activities that are widely accepted. This can easily lead to the practice of ignoring the norms. Many people think that it is worth it to take risks. When someone is caught, he is likely to receive sympathy...

[Answer] It is worthwhile to distinguish two variations: When someone removes goods from the market and passes it on at a profit, this is a practice that has always and everywhere been punishable. But if we are talking about the production of new values, that is, the satisfying of existing economic needs, then people will risk imprisonment, because they can make money while fulfilling genuine economic needs. For example, hundreds of small apartment buildings have gone up through methods that were referred to as non-professional. The officials were aware of the actual methods involved in these constructions; still, whenever an enterprising contractor was caught, he was sentenced. Yet, the truth is that few builders who performed their contractual obligations were indicted. In most cases, a contractor operating in the gray area between legality and illegality also had to be guilty of embezzlement or fraud before his clients filed suits against him. It is certain, however, that the methods of criminal law should only be used in cases of exceptional behavior. If everyone could consider himself guilty, then people could not approve of sentencing the law-breakers, fearing that tomorrow any one of them could be imprisoned.

[Question] If I understood you correctly, criminal law will continue to have a role in the implementation of economic aims, and the gist of changes can be summed up by stating that the task of the legal system will not be to compel the accomplishment of certain performance, but rather the protection of the system of economic conditions.

[Answer] If we consider the 1950s as the basis of comparison, then this change has already been accomplished. The number of economic crimes has been reduced from tens of thousands to two or three thousand annually. This amounts to about 2-3 percent of the total crime statistics, and this proportion is not likely to be modified in the future. What is likely to change is that there will be infringements of different types, in accordance with the changing conditions. After all, there is no economic system of which someone cannot take advantage. When a thorough system of taxation is developed, the frequency of tax evasions is likely to increase. Every institution will produce people who take advantage of it. Thus, modifications are likely to be restricted to

this area. As for the economic role of criminal law, it will remain in effect as outlined above.

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RELATION OF REDISTRIBUTION TO EFFICIENCY STUDIED

Budapest MAGYAR NEMZET in Hungarian 15 Oct 85 p 4

[Article by Gyorgy Molnar, Research Associate of the Scientific Institute for Economics: "Redistribution and Efficiency"]

[Text] One of the means by which the success of the economic mechanism's further development can be judged is whether the gap between the national and enterprises' efficiency of economic activities has been narrowed or not. We have long been aware that the two are not identical, and we have also known that success in achieving either national or enterprise-centered efficiency does not automatically bring with it success in the other sphere. If, for example, the production of an item is considered efficient from the point of view of an enterprise, it does not mean that the resources utilized in production (material, labor, equipment) will be properly compensated for by selling the item. And the reverse is also true: Utilizing our advantages derived from our economic situation by producing certain commodities is not always made profitable for the enterprises by the regulations.

Role of the Branches

One of the fundamental components of the mechanism intermediating between the interests of the enterprises and the national economy, and in some cases a partner that is able to present independent demands, is the branch.

From the point of view of economic growth and the transformation of economic structure, one very important factor is accumulation or--looking at it from the side of the regulatory agencies--the financing of accumulation. This calls for a more thorough analysis of the distribution of accumulation and income usable for accumulation among the various branches, and the relationship between the two factors, which surface in the form of income-redistribution. One of the major observations is that the ignoring of these relationships contributed heavily to the failure of restructuring efforts during the 1970s, and the same lack of insight hinders the implementation of the process today.

At the level of national economy, the income that can be utilized for accumulation equals the value of accumulation. However, there are branches in which more income is generated than the value of accumulation (let's call these income-transmitting branches), while there are others where the value of

income is lower than the value of accumulation (income-receiving branches). The gap between the two kinds of branches is bridged by income-redistribution, which assures that income over and above the accumulation generated within the branches is assigned to the place of accumulation. Income redistribution is usually implemented through the central budget, and its actual realization is not as easy as we outline it here. It has a great number of concrete forms; the income-receiving branches also pay taxes, while the income-transmitters also receive some budgetary subsidies. Recently, income redistribution has also been implemented through forms that are not connected to the national budget; for example, an enterprise may transmit its surplus income to the place of accumulation by purchasing bonds. Let us leave aside the complicated system of redistribution for now and concentrate on examining the end result, that is, how the individual branches shared accumulation and income production, and what the relationship between the two has been since 1970.

During the 1970s, between 32 and 38 percent of the accumulation went to manufacturing, between 14 and 15 percent to agriculture, and between 44 and 51 to the service industries. The relationship between the changing share of accumulation and the varying pace in the growth of accumulation is important. If accumulation on a national level is decreasing or growing at a slow rate, then the proportion received by manufacturing is relatively low, while that received by the service industries is relatively high; on the other hand, when national accumulation is growing at a significant rate, then the share of manufacturing is increasing, while that of the service branches is decreasing, especially in the non-producing specialities. This is usually explained by the practice, that manufacturing, which is neglected during periods of restricted accumulation possibilities, is given generous "compensation" in times of growth. Thus, the accumulation of productive means has been more rapid in manufacturing than in the service branches. During the early 1980s the resources that could have been used for accumulation have been growing slowly, or have even decreased. The relationship between the growth of accumulation and the share of the various branches remained in effect; the share of manufacturing is around 30 percent, while the share of the service industries is higher than it has ever been during the 1970s. What is more, this accumulation structure has remained more or less constant for the last five years, a factor which, in the event of increasing opportunities for accumulation is likely to accentuate the phenomenon experienced during the 1970s; in other words, the share of manufacturing accumulation will increase out of proportion, while services will be neglected.

Income and Incentives

There is a sharp distinction between the structure of accumulation and the structure of income that can be utilized for accumulation. Such income, in fact, is produced only in manufacturing, construction industry and the producing services (primarily in commerce). Due to the disproportions of branch-based price structure, agriculture and the nonproducing services receive almost none of the income. What this means is that any accumulation within these branches has to be financed almost exclusively through the method of income redistribution. The dispersal of generated income is characterized by stability. At the same time, there is a certain one-directional change taking place. The shares of manufacturing and construction

industry are increasing: during the early 1970s their combined value used to be relatively stable, around 66 percent, while in the second half of the decade this value rose above 70 percent. Conversely, the share of the service industries dropped from the 33-35 percent of the first four years to below 30 percent.

With the adoption of competitive (export or import following) prices during the early years of the 1980s, industrial share rose by more than 10 points to above 75 percent. Significant increases took place in the shares of mining, electrical energy production, and chemical industry, while those of machine and light industry decreased, but not sharply enough to negate the above increases. The situation of agriculture has not been influenced by these changes; it still does not produce any income that can be utilized for accumulation. The producing service industries' share, which used to be almost 30 percent, dropped close to 20 percent, while the share of non-producing services became a permanently negative value; prices prevailing in this sphere do not even cover the costs of material and labor.

If we compare accumulation and the distribution of income among the various branches, we find that during the 1970s some 40-50 percent of income was used for the purposes of accumulation in branches other than its place of creation, and since 1979 the proportion of income redistribution has risen above 50 percent! This means that during the early years of the 1980s more than half of all monies utilized for accumulation was created elsewhere, or, conversely, more than half of all income was removed from the branch where it was created. These averages conceal greatly varying extremes. Just a few examples: About 60 percent of the income generated by manufacturing is syphoned off to other branches, while the accumulation in the service industries uses up two and a half times as much money as the income they create. Such extensive and intensive income redistribution, encompassing the entire nation's economic life, contradicts the requirement according to which the gap between the degree of efficiency at the national and the enterprisal level should be reduced. The income-transmitting branches, the enterprises within these branches, feel that the income taken away from them is too great; they will have less incentive to work for income growth, since they will be able to use only a small percentage of the money thus earned for their own purposes. The income-receiving branches are not growing because of their own efficiency, since their accumulation is underwritten by the provisions of the national budget.

At first glance, it appears that the solution is simple: We should greatly reduce the extent of centrally implemented income redistribution. However, the above-described factors represent only a portion of the problem. The extreme differences between the incomes of the various branches can also be explained by the disproportionate production costs. In agriculture and in the service industries these prices are low in comparison with investments, while in manufacturing and construction they are relatively high, and these cause the divergences in profitability. (Similar lack of proportions can be observed within manufacturing as well.)

In the case of such chronic and greatly one-sided differences between the branches--when the profitability of an enterprise is largely determined by its

belonging to this or that branch--profitability cannot be identified with efficiency. This type of production price system is unable to measure the efficiency of enterprises belonging to different branches against one another, and this fact further contributes to the gap existing between efficiency on the national and the enterprisal level.

Lasting Transformation

Thus, the situation that was created earlier and became permanent and inflexible during the 1970s is quite grotesque: The disproportionate prices of the various branches brought into existence extreme differences in the profitability of the branches, which are subsequently smoothed out by central authorities that rearrange the incomes. The prevailing price structure makes redistribution necessary, because without it agriculture and the service industries would be unable to amass any capital accumulation, and the nation's economy could not operate.

What explains the fact that, while manufacturing incomes are decreasing and those of agriculture and the service industries are slightly increasing, the proportion of accumulation shows a balance in favor of manufacturing? It has already been mentioned that income redistribution takes care of the differences in the producing price system. However, this redistribution is not comprehensive. It can be stated that in the course of accumulation those branches enjoy advantages that produce the income for redistribution, while on the other hand those branches whose accumulation is financed by resources created in other branches, will be at a disadvantage. (It has been frequently claimed in arguments on behalf of increasing industrial investments that income-production is concentrated in the industrial sector. This type of argument is particularly effective at times when periods of restricted accumulation opportunities are followed by upswings.) Thus, the circle is closed, demonstrating that, in spite of appearances, those branches are in the most advantageous position from which the central budget takes away the largest amount of money, and those which receive their resources from the budget are disadvantaged.

How did the situation change with the introduction of competitive price development? As a result of adjustments made because of the prices obtainable abroad, the prices in the processing industry have decreased significantly; thus, in their case, the inequalities have been moderated somewhat. Consequently, the income produced by the processing industry decreased. At the same time, the volume of national accumulation remained more or less constant, thus the requisite income had to be produced by some other segment of the economy. Since price changes have been basically limited to industry, the choice was limited to the branch producing primary materials, in which, owing to the pricing principle following imports, prices, and thus incomes, increased in an extraordinary manner. In the meanwhile, the structure of accumulation has not changed much, and this provided opportunities for further expansion in the scope of income redistribution.

In summary, it can be stated that the intra-branch structure of accumulation, prices and income redistribution are closely intertwined and mutually influence each other; they can only be altered in a lasting fashion, if we

consider the mutual influence existing between them. If we wish to close the gap between the degree of efficiency on the national and enterprisal level, if we wish to change the structure of our economic life in a positive manner, we need to implement just such lasting changes.

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BAKA DISCUSSES 1986 CREDIT PLAN

AU021332 Warsaw TRYBUNA LUDU in Polish 28 Nov 85 pp 1, 2

[Report on speech by Wladyslaw Baka, president of the Polish National Bank, at the 27 November Warsaw Session of the Sejm]

[Text] W. Baka discussed the government draft resolutions on the credit plan, on the balance of the population's incomes and expenditures, and on the principles of fiscal-credit policy in 1986: the main theses of W. Baka's speech are:

-- Of the overall amount of the planned increase in loans of Z1.1 trillion some Z800 billion will be used by enterprises to finance their activities.

-- Most of investment funds will be committed to financing central investments and cooperative housing construction. For the first time since 1983 the banks intend to increase loans to enable enterprises to finance their own investment, mainly those that help increase production and promote technological progress.

-- Loans to develop the food economy and to protect the natural environment will be increased.

-- The loans to promote housing construction will be greatly increased. The bank shares the view of the national trade union federation that crucial changes should be made in providing loans for housing.

-- Active and clear loan policy will be pursued in 1986 vis-a-vis economic units and will be based on the criterion of effectiveness.

-- It is assumed that the population's incomes will increase 14 percent and will amount to Z7.185 trillion and that expenditures will increase about 17 percent and will amount to Z6.735 trillion. Wages in the socialized economic will increase 14 percent, social benefits almost 25 percent (90 percent of this increase will go to increase all kinds of pensions), and the incomes of private farmers will increase 9 percent through sales of their produce.

-- The value of goods supplied for the population will amount to Z5.31 trillion and will be by 16 percent higher than in 1985.

The balance of the population's incomes and expenditures is tight but feasible and attests to efforts to restore the money-market balance.

VADUVA HAILS CEAUSESCU'S ECONOMIC POLICY

Bucharest VIITORUL SOCIAL in Romanian Sep-Oct 85 pp 407-414

[Report read by Prof Dr Ilie Vaduva, rector of the Academy of Economic Studies, at the Scientific Session arranged as part of the "Economic Academy Days," on the subject of "The Ceausescu Era. Twenty Years of Romania's Socioeconomic Development and the Prospects Anticipated by the 13th PCP Congress"]

[Text] The 20th Anniversary of the Ninth RCP Congress, in review of the great progress made and in the bright outlook for Romania's socioeconomic development in conformity with the 13th Party Congress' decisions, graphically illustrates the correctness of the RCP's policy and the profoundly scientific and realistic originality of Party Secretary General Nicolae Ceausescu's conception of the present and future of Romanian society.

The great gains in the period inaugurated by the Ninth RCP Congress are inseparable from Nicolae Ceausescu's prodigious activity performed with a profoundly creative spirit, revolutionary enthusiasm and fervent patriotism. Over those 20 years, the period that has gone down permanently in Romania's awareness as the "Ceausescu Era," the Romanian people under the wise leadership of the man identified with the nation's socialist and communist future obtained the most productive results in their entire history. Thanks to the revolutionary reforms of those years Romania is now a country with a strong modern industry, a socialist agriculture in full progress, an extensive scientific, educational and cultural development, a rising standard of the people's material and cultural civilization, and an unprecedentedly high international prestige.

Actually the energy going into this undertaking, which has radically changed the living and working conditions of all residents of these ancestral regions regardless of nationality, is included in the dialectical viewpoint that Nicolae Ceausescu has lent the whole process of building the new order, which is planned and implemented as a continuous revolutionary process because what we have accomplished and what we intend to accomplish are always closely coordinated.

The heart and soul of this truly revolutionary-constructive undertaking are based on the exceptional thought and work of our great leader and an intensive and in-depth knowledge of the vital necessity of building socialist society on Romanian soil with the people and for the people.

The originality, permanence and proportions of this uplifting task, unprecedented in the Romanian people's history, stem from Nicolae Ceausescu's powerful capacity for revolutionary and dialectical-materialist scientific thought and invention based upon in-depth knowledge of the objective laws and regularities of socialist construction and contemporary socioeconomic development and upon constant consideration of the internal and international conditions that experience proves to be present and long-range trends.

The mechanism of the national economy as a planned and purposeful manifestation, on all levels of the national economy, of the capacity of the members of society as owners, producers and beneficiaries of all that is created in Romania is one of the major problems treated and resolved in Nicolae Ceausescu's constructive revolutionary work.

The points made in the Report to the Ninth RCP Congress concerning the compatibility of the law of planned development with the law of value in socialist economics and the planning by the 1967 National Party Conference of a series of measures to improve planning and management of the national economy as well as Romania's regional-administrative organization are graphic evidence of the importance the RCP general secretary attaches to determination of the best mechanism for the Romanian national economy that will secure rational distribution of the social labor resources and their expenditure to the greatest socioeconomic effect.

The start, pursuant to the decisions of the Plenum of the RCP Central Committee of March 1978, of a new mechanism of the Romanian national economy based on workers self-management and economic-financial self-administration is the result of a regular dialectical intensification of scientific knowledge of the objective requirements for building the new order and the internal and international socioeconomic facts. It is also the result of eliminating all that is outmoded and unsuitable and consistently promoting the ways and means to effective, fundamental and lasting solutions to the great problems of implementing the RCP Program for Building the Fully Developed Socialist Society and for Romania's Advance Toward Communism.

The RCP's interpretation of the national economic mechanism as a purposeful means to balanced operation of the economic system as a whole and of each and every subsystem on the basis of compatible criteria and terms for harmonizing the interests of the economic subjects enabled it, especially after the Ninth RCP Congress, to devise and establish the most suitable organizational and administrative structures, means of evaluating the outlays and results, and economic-financial, social-financial and social-political levers to encourage rational expenditure of resources and to involve the masses in social management.

In the party general secretary's view the socialist economic mechanism is based objectively upon the requirements of the economic laws governing socioeconomic development as well as the specific historical conditions in Romania at each stage of socialist construction, and the way the national economy is related to the world's economic interdependences. Reflecting the party general secretary's original conception of the particular way the workers' threefold capacity (as united socialist producers, joint owners of the production means, and beneficiaries of all socioeconomic development) is manifested, the national economic mechanism is characterized by the economic base of socialism, all social and

production relations, and the way they interact with the nature, level and requirements of the productive forces' development and with the superstructure of society. That is why, in the party's view, the national economic mechanism is designed and constructed on the basis of a set of fundamental principles concerning the Communist Party's leadership throughout society, the socialist state's uniform coordination and direction of all socioeconomic development according to the Unified National Plan, democratic centralism, workers self-management and economic-financial self-administration, more effective socioeconomic activity as a whole, material incentive and regional self-supply.

The RCP feels that correct formulation of the principles of scientific social management, determination of the standards set by observance of each one of them in socioeconomic activity, and consideration of the dynamic interdependences generated by their system are exceptionally important in determining the best ways and means of regularly refining the social and production relations and promoting workers' participation in social management in accordance with the characteristics of the productive forces' development.

So that the national economic mechanism will secure the normal course of the economy, the party secretary general believes the fundamental principles should be applied in accordance with the evolution of all the interacting technical-scientific, socioeconomic and internal and external political factors, wherefore their constant improvement becomes a basic law of steady, all-around progress. In the course of those objective determinations, the RCP took realistic and consistent measures to develop the leadership of the party on a scientific basis and to make the party the vital center of all society, while strengthening uniform management of the national economy according to the Unified National Plan for Socioeconomic Development and creating a broad democratic structure for the workers' purposeful participation in social management.

In the new stage of socioeconomic development, the complexity and difficulty of the problems presented by experience as well as the need of increasingly extensive and active involvement of the members of society in finding the most suitable solutions led the RCP to substantiate, at the 13th RCP Congress, the new dialectical unity between reinforcement of uniform management on the basis of the Unified National Plan, with development of the party's leadership, and the workers' greater initiative and the greater autonomy of the primary units of the national economy, reflecting the dynamic interaction of personal with collective and general interests and of current with long-range interests.

Based upon these fundamental principles of scientific social management, the national economic mechanism must permit scientific, realistic and timely knowledge of the national economy's needs and potentials so that the useful results of economic activity and the socially necessary outlays to obtain them can be planned.

Since the results of economic activity must meet the needs of productive and non-productive consumption and the social labor outlays to obtain each unit of useful effect must be kept within the limit that society can accept as a socially necessary norm for each stage, the outlays and the results of economic activity must be measured with appropriate economic indicators to reflect the state of economic effectiveness correctly. Although the gross, final, newly created, net and physical economic effects have objective determinations within each productive activity, the party general secretary considers the physical, final, newly

created and net ones essential. Thanks to this realistic scientific conception, the improvements that were made in the system of economic indicators for planning and checking results now permit concentration of enterprise activity upon what is essential from the standpoint of the vital interests of society and of every individual.

Moreover in Nicolae Ceausescu's view the economic mechanism must secure the balance of socioeconomic development among sectors and regions and on the micro-economic and macroeconomic levels. The correlations and proportions that define and determine the dynamic structural balance of socioeconomic development are the ratios between the raw material and energy base and the requirements of the national economy, between the output of producer goods and that of consumer goods and services, between industry and agriculture, between the import requirements and the possibilities of covering their costs by means of exports, etc.

In this connection the party general secretary pointed out that unity of the national economy on the scale of all its subsystems and subjects, as determined by common ownership of the production means, provides only the objective prerequisites for planned management of the national economy. The essential consideration is to base upon them the rates and proportions of socioeconomic development among the sectors and regions that will secure the compatibility in time and space of the subsystems of social production with the natural-material and value aspects of plan fulfillment.

This view means that the balance of national economic development will be based on coordination of the aims of the economic policy for the first stage with the existing resources, proper proportioning of the subsystems of social production, and on use of an economic mechanism that can harmonize current with long-range interests throughout society as a whole.

This meets one of the essential requirements for the economic balance, namely actual coverage of the aims of socioeconomic development with the existing or planned natural-material and human resources at a level of efficient use of the production factors that is socially permissible for the given stage. On the basis of the norms for consumption of raw materials, materials and fuels and those for personnel, the Unified National Plan for Socioeconomic Development provides for the proportioning of the balance and correlation of its proportions in accordance with the real possibilities of maintaining them over a period of time. In the strategy of the RCP's economic policy this objective process is intended to progress in keeping with the requirements for saving time. Conservation of live and materialized social labor is the essence and the best measure of the effectiveness of social production and the absolute law of the evolution of the Romanian socialist system that essentially and permanently determines acceleration of socioeconomic development and the fullest possible satisfaction of the requirements for productive and nonproductive consumption.

This objective criterion on which the balance of development is based is valid only if the results of social production are coordinated with the real requirements for productive and nonproductive consumption quantitatively, structurally and qualitatively, both being viewed as society's needs and possibilities develop. In their unity, these terms of the balance provide both for the prerequisites for socioeconomic development and for the social purpose of production.

Accordingly, greater efficiency is one of the basic functions of the economic mechanism in Romania, and the whole balanced operation of the national economy as a whole and of each and every subsystem is subordinated to it.

This essential function of the economic mechanism, asserted in a broad view by the party general secretary at the National Party Conference in 1967 not only for the national economy as a whole but also for every sector and subsector, every economic unit, every production factor, and for every individual product and job, is the essence of the entire process of operating and improving the mechanism for managing and planning social production.

In accelerating the growth of economic effectiveness, the economic mechanism is expected to consistently promote the introduction of the latest scientific and technical advances in all socioeconomic activities. As Academician Dr Eng Elena Ceausescu said, any technical measure and any technological improvement must be evaluated in terms of greater labor productivity, lower material outlays on production, and better product quality, and the 13th RCP Congress accordingly based Romania's intensive development upon introduction of the latest scientific and technical advances in lasting support of the programs on behalf of labor productivity, reduction of material outlays, and technical and qualitative improvement of the products.

As the basic element upon which the balance of progress depends, greater economic effectiveness is the sole criterion for correlating vitality with stability in the process of improving the operating mechanism of the national economy.

If increased economic effectiveness is to become the support of intensive development, the economic mechanism must harmonize personal, collective and general interests as well as the current and the long-range ones on the basis of a system of objectively determined priorities for each stage of socialist construction. In practice this basic function is performed by means of a set of economic-financial levers designed to operate as a single adjustable whole. Price, wage, profit-sharing, credit, finances and workers participation with social shares are only a few of the economic-financial levers the RCP has designed to permit the economic mechanism to perform its incentive function. Arrangements on the economic principles of prices in all sectors of the national economy, in proportion to the social outlays on production, as prerequisites for securing a normal profitability and for the operation of economic-financial self-administration, as well as dependence of all workers' incomes upon the actual results obtained through the intermediary of better forms of remuneration such as the overall contract system, are just a few of the measures taken in the years since the Ninth Party Congress for the greater incentive of the economic units and workers to fulfill the plan tasks with high economic effectiveness.

Nicolae Ceausescu has frequently pointed out that if the economic mechanism is to perform this function, it is essential for labor productivity to increase faster than workers' incomes in order to actually cover the allocations for raising the living standard with goods and services (in the appropriate quantities, assortments and quality) and for prices to evolve within the planned limits, in proportion to the evolution of the social outlays on production and the gain in purchasing power of workers' incomes. The party general secretary points out that if this basic correlation of the economic mechanism (productivity-incomes-prices) is to evolve in keeping with the requirements for balanced development,

These terms of the balance, with which socioeconomic development in the Romanian system begins and ends, were set by the general secretary from a realistic and broad historical and political viewpoint in the interests of the entire people's progress and prosperity and in conformity with the demands of independent development in a world of growing interdependences.

Accordingly, by placing the outlays of raw materials, fuel, energy and manpower to obtain national income on a scientific basis the real requirements are met for setting the proportions of accumulation and consumption according to the objectively determined needs and the actual possibilities of covering them with competitive effectiveness. The allocation of about 30 percent of the national income to accumulation and about 70 percent to consumption in the 1986-1990 Five-Year Plan means that if development is to be balanced, less and less material, financial and manpower resources can be expended to obtain every unit of national income, so that in time the effect must exceed the investment to obtain it. It is on this strategy that the 13th Party Congress based socioeconomic development in the next period, when emphasis upon the qualitative, intensive factors for effectiveness and competitiveness becomes the first economic law of Romania's steady all-around progress, securing the advance of the Romanian economy under the new internal and international conditions and enhancing its capacity to concentrate and focus its own forces on consolidation of the balance of independent development.

The fact that Romanian industry will be developed primarily by intensive expansion of the qualitative factors for economic growth is also vital. For example, the doubling of labor productivity in industry in 1990 from 1980 most graphically reflects the fact that the growth rate of that sector is based on the qualitative and intensive factors for economic growth. As Nicolae Ceausescu pointed out at the Joint Plenum of the National Workers Council and the Supreme Council for Economic and Social Development, "The next five-year plan and accordingly the provisions for 1986 accentuate intensive development of industry and the other sectors and achievement of a new quality of work and life. The 1986 plan ushers in the new stage of socialist revolution, which is critical for the RCP Program for Building the Fully Developed Socialist Society and for Romania's Steady Advance Toward Communist Society."

Moreover reduction of energy consumption per unit of national income by at least 20 percent and reduction of the proportion of material outlays in the social product to 53 percent, accompanied by a 60 percent gain in productivity and a 27 percent better use of raw materials, fuel and energy while the technical and qualitative levels of the products are raised to meet world standards, will be the real support for striking the balance under intensive development in 1986-1990.

The party general secretary believes implementation of the mechanism of the new balance between needs and resources both by expanding the domestic raw-material and energy base and by conserving every resource in order to meet the requirements at increasingly high quantitative and qualitative levels will be supported primarily by the qualitative progress of all the production factors.

Realizing that the basic and lasting means to balanced socioeconomic development lies in efficient expenditure of the social labor resources, Nicolae Ceausescu envisaged the operation of the economic mechanism in correlation with the rational socioeconomic, technical-scientific and ecologic standards of our time. (1)

the standards set by the principles of workers self-management and economic-financial self-administration must be fully observed in all economic units.

The fact is significant here that the party general secretary believes the economic mechanism operates in the unity of the broad democratic organizational structure created by all workers' participation in organization and management of all socioeconomic activity with the system of economic-financial levers and methods of forming and indoctrinating the new man, so that all its components will be correlated and combined in an optimal system for applying the entire people's unity of thought and action to steadfast implementation of the RCP's policy of building the fully developed socialist society and Romania's advance toward communism. And he accordingly believes the battle must be won for the highest possible economic effectiveness, which will become essential to accelerated development of the Romanian national economy and to a high material and cultural living standard for all workers.

The party general secretary's scientific, innovating conception of further improvement of the operating mechanism of the national economy is an excellent indication of the high humanism with which our renowned leader, who has made serving the Romanian people's highest aspirations the supreme goal of his life as a militant revolutionary and an ardent patriot, constantly thinks and acts.

It may be said quite rightly and with patriotic pride that this magnificent revolutionary-constructive work, boldly open to the future and with roots deep in the socioeconomic and political facts and in the glorious age-old past of the Romanian people, which the RCP general secretary and president of Romania has been creating day by day and hour by hour, is the highest expression of patriotic responsibility for the Romanian people's future, for their progress and prosperity in peace and quiet, and for their independence and sovereignty that has been known on Romania's ancestral land.

FOOTNOTE

1. Nicolae Ceausescu, "Speech at the Joint Plenum of the National Workers Council and the Supreme Council for Economic and Social Development," Bucharest, Political Publishing House, June 1985.

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ARTICLE HOLDS SOCIALISM RESTRICTIVE OF JOINT STOCK COMPANIES

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 30 Sep 85 p 9

[Article by Vladimir Gligorov]

[Text] What is the essence of socialism? Social (national, government) ownership? Then money would have to be abolished. Public investments? Then savings would have to be prohibited. Planning? Then exchange on the market would have to be prohibited. Socialization of production? Then small business would have to be prohibited. Taking command of the surplus value of labor? Then the collection of interest would have to be prohibited. If we were to go all the way down the line, the ideas of socialism would more and more contradict socialist reality. Everything that socialism ought to replace exists in one way or another in the socialist regimes. Not, of course, if the ideas are without influence. Some things have been prohibited. As a matter of fact, the essence of socialism is seen in prohibitions, not in freedoms.

For example, why is the establishment of joint stock companies not allowed? Put differently, why do socialist economies rely solely on credit? I would like to point to two reasons which I believe will illustrate the negative essence of socialism referred to. The first is evident at once. Shares of stock are a commodity, and they require a market. And open-air produce markets, supermarkets, department stores, wholesale and retail trade, and indeed even the banks--are those not markets? Without a doubt. Let us take different analogies in order to see why the marketing of stock shares has a bearing on their prohibition. A foreigner could invest directly in our enterprises. That would cause problems, which to some extent is in fact natural. Nevertheless, foreign capital is needed, and we are gradually making it easier for it to be invested. It is also possible for us to build up savings in foreign currencies (and indeed even to use them to obtain credit). Foreign exchange is necessary, so we encourage people to save it. But that is an exception rather than the rule--a necessity rather than a principle. Incidentally, the market for foreign exchange lies outside our borders, but foreign currencies can always be bought up, since they are in our banks. So, either foreign or under control. If a stock exchange were opened, the exception would become the rule--the principles would have to change. And control would be unfeasible or more difficult. The market stands in opposition to socialist principles, that is, to those principles on which the socialist regimes are based. It is allowed when it is useful, but it is not allowed to become independent.

Which brings us the key issue related to the market. Many people think that legalization of the market is not important, since it exists in any case, and it has not been altering the "essence of socialist power." Then there are others who believe, and some who indeed fear, that complete acceptance of the market will alter the very essence of socialist power. In my opinion, both conceptions are mistaken. Let me try to show this in the following way. One school says: the law of value must operate under socialism; the law of value contains the money-exchange economy; the money-exchange economy contains the market; the market contains all the rest. But that is not so. The law of value and the money-exchange economy may be elements of a planned system. The factors of production can be classified by profit rate, and all transactions can be made with money. And still there is no market. The market is an institution.

It is not enough to opt for the law of value and a money-exchange economy for the market to exist. Incidentally, the market exists in reality even in the face of the planned economy (the black market, the gray market, the white, the red, or some other color). The market is an established form of exchange, which occurs at a particular place and involves adherence to certain rules. It cannot be directly monitored. The black market is allowed, since its illegality is kept under control. Various forms of the consumer goods market are allowed, since control of the factors of production guarantees that they will not be independent. A stock market can neither be controlled nor monopolized in a simple way. The market is an independent social institution. The essence of socialist power is restriction of independent social institutions. Which accounts for the resistance toward the market and especially toward a stock market. Whereas the usefulness and dependence upon the government can be demonstrated in the case of other markets, the market of factors of production requires adoption of a new principle: the usefulness and justifiability of independent social institutions. And that alters a part of the "essence of socialism."

Another reason for prohibiting shares of stock points to another aspect of the essence of socialism. Why is it that banks can exist, but not a stock market? Why credit, but not shares of stock? Because the banks are ours, and the stock exchange is not. Banks provide a quite definite form of control. On the one hand the government, on the other associated labor, and even independent banks cannot but do the bidding of those who control them. At this point we run into illusions. Control through money is not so simple. The lack of financial discipline in the socialist economies provides clear confirmation of this. What is more, even if financial discipline were provided for, nothing guarantees that it will contribute to real discipline. Socialism faces a dilemma in its financial system. The functions of money, credit and the banks must be restricted in order to guarantee control. Yet if they are restricted, the banks are taken over by the debtors (the government or associated labor). In the first case credit is used only for transactions, and it has no impact on the actual allocation of the factors of production and there has to be wastefulness. In the latter case the result is the lack of financial discipline. This is where the error is. Socialist rule wants to use credit as a means of control, but this is almost unfeasible. Shares of stock on the other hand offer the possibility of financial discipline and financial freedom and they promote the optimum allocation of the factors of production. They also promote the independence of the banks. But they slip out from under the control of the government, that is why they are prohibited.

ECONOMIST DISCUSSES USE OF SOCIAL FUNDS IN PRESENT SYSTEM

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 11 Nov 85 pp 20-23

[Interview with Miroljub Labus, associate professor of political economy in the Law School of Belgrade University, by Mijat Lakicevic: "The Price is the Key Problem"; date and place not given]

[Text] In the opinion of Miroljub Labus, associate professor of political economy in the Law School of Belgrade University, private and collective ownership, the two basic historical forms of ownership, differ from one another in six elements. The first difference is in the identity of the owner, and the second in the number of entities holding the powers of ownership, the third element of difference lies in the interests realized through use of the property, the fourth lies in the attitude toward personal ownership, the fifth element of difference between private and socially owned property pertains to the risk or the sanction of ownership, and, sixth, the element of normativism, that is, the role of the state. It seemed to us most suitable in view of the current socioeconomic situation and the discussions which are taking place to begin the presentation of our interview with the last two.

EKONOMSKA POLITIKA: What is it that distinguishes private property from our form of social ownership with respect to business risk on the one hand and the role of the state in defining ownership on the other?

Miroljub Labus: The first thing I would like to say here is to point out the need to free the discussion of ownership of all ideological veils, prejudices, and mystification. Every form of ownership has its advantages, but also its defects, and that is why we need a concrete and precise economic analysis so that they might be ascertained and so that the building being erected would be as stable as possible.

Under capitalism there are three forms of enterprises: first, there are private establishments, small business, then there are partnerships, and third, there is the corporation which is based on stock ownership. In this latter form there are three principals somehow connected together. They are the workers, the entrepreneurs, and the owners. The workers receive a wage according to the price which forms on the market for manpower. There are no fluctuations in the level of the wage, but employment is not guaranteed them. As soon as profits begin to fall, the capitalists do not pay lower wages, but lay

the workers off. Second, businessmen who run the joint stock company receive compensation which is actually a share in the profit. They are not guaranteed employment security either, since as soon as the profits begin to fall, they lose their job, but not their income, since it is related in a particular way to the success of the enterprise. Finally, the owners receive dividends in the form of income from property. If the capitalist enterprise does well, it realizes surplus profits, and those surplus profits also go to the owners indirectly, since on the stock market the price of their stock automatically rises, which means an increase in the value of capital. But if the enterprise does poorly and earns low profits, once again through the capitalization of profit, there is a drop in the value of capital, so that the owner then has a capital loss. What am I getting at here? The workers and the businessmen do not bear the risk of ownership, that is borne only by the owners. The government is outside this situation, and it merely regulates monopolies and prohibits the abuse of private ownership.

In our country the situation is altogether different. First of all, the status of self-managers guarantees job security to those who are employed. When work collectives incur losses, they reduce personal incomes, but they do not lay the workers off. Still this is a kind of risk, although still not the risk of an owner. The risk of the owner ultimately falls on collective ownership, that is, on society as a whole, since the workers do not have the powers of ownership with respect to socially owned resources. After all, you see, in our country there is no market for social capital so that its value might be determined in the form of stock through the capitalization of profit. In our country there is a system of amortization of the purchase value of social resources. Socially owned resources are acquired at a particular price, their value has to be adjusted for the level of the rise of prices (we will not go into the fact that in our country this is done poorly), and the workers must reimburse the value of resources invested. Now where is the government in this case? It not only prescribes what cannot be done, but it also orders what must be done with collective property in the name of some sort of general interests. There are several channels through which those restrictions on collective ownership are implemented in our country. First of all, the government orders that socially owned resources must be used in keeping with their purpose. The second legal restriction is that work collectives must maintain the value of socially owned resources. In practice this is achieved through the legally established minimum rates of depreciation.

The next restriction is that work collectives must accumulate a portion of income, that is, they must not only maintain, but also augment the value of the socially owned resources. By contrast with the previous obligations, this one is specifically introduced through social compacts concerning the distribution of income. Finally, certain elements of external accumulation (legally required pooling of resources for social reproduction, republic and opstina reserve funds, and so on) are introduced.

EKONOMSKA POLITIKA: Why is it that the state regulates the disposition of collective property to such an extent, is it because it assumes that private property will be disposed of optimally, but in the case of collective property, since it is "no one's," the government must force those who work to use the resources optimally?

Labus: No, it is a consequence of the need to regulate the relationship between general and individual interests, since the general interests need not automatically be realized through the individual interests. That is why someone must regulate the realization of the general interests. The general interest might be, say, achievement of full employment or equalization of economic development or achievement of a certain rate of economic development, and so on. However, in the case of private property, since private interest is the basic one, the government defends the general interest by setting the limits to which the private interest can go. Here, of course, by private ownership we mean the market on which there is a competition among private interests. But competition among private interests does not mean, as Adam Smith once believed, that the invisible hand of the market brings about the realization of the general interest, but rather sometimes the general interest can be achieved through their competition, while in other cases it cannot. And then the government figures as an institutional obstacle prohibiting the realization of the private interest insofar as it is contrary to some general interest.

EKONOMSKA POLITIKA: At this point one often hears the criticism that social ownership, as the foundation of the socialist societies, is one of the most essential, if not the most essential, causes of their lagging behind. And second, would social ownership yield different and better results under the conditions of a market economy than in a planned administrative economy. To what extent are the causes of that inefficiency and lag in social ownership, and to what extent in the (centralistic) management of the economy?

Labus: You have actually mentioned two causes in your question. One cause of the lag of the growth rates in the socialist countries has to do with inappropriate regulation of the concept of ownership, while the other is related to the market and to the organization of society, that is, to the coordination of economic entities. As for social ownership, the old objection in theory is that social ownership is inefficient. There was a great debate about this in the thirties and forties. Hayek was on one side and Lange on the other. Lange argued that government ownership, which eliminates the market for resources, could also be an efficient form of the organization of an economy provided there is a commodity market and a labor market. That debate and similar arguments arose again in the seventies, although this time the objection was not addressed to the Soviet economy as it had been previously, but it was said that the Yugoslav form of social ownership did not guarantee efficient use of resources. That is the well-known Furobotn-Pejovic effect. What this means is that if the workers create accumulation and invest in their own work collective, they have an obligation to amortize the resources invested, which means that that portion of accumulation or invested capital will never become part of their personal incomes. In future they can increase their personal incomes only out of the yield from that investment. On the other hand, if they commit that portion of resources to personal incomes instead of accumulation, then they could invest that portion in the bank and receive interest. But when the term expires for which the resources have been deposited, they not only draw interest in the interval, but they can also get back their entire principal. The obligation of amortization does not make it possible for them to obtain the principal, and it is felt that work collectives are less

motivated to invest, since for them to invest the project must have far higher yields than under normal circumstances. Since there are few such projects, there are strong forces for underinvestment.

Regardless of certain defects, this criticism has taken hold of a dilemma which really does exist in our country. However, the real problem is that the charge for the use of social resources is very low, so that every investment brings a yield which is larger than that charge. So the workers are in practice stimulated to invest in their own work collective, which brings about an effect which is referred to as the bias of capital toward investment.

EKONOMSKA POLITIKA: That is also a cause of the autarky of economic entities.

Labus: That autarky has its rational economic basis. Since the price of socially owned resources is low, the yields from their use, however small they may be, are higher than that price, and instead of the socially owned resources going where their use is the most optimal, they are invested within the same work collective. That autarky causes on the one hand a lower level of employment, and on the other suboptimal use of socially owned resources--and when you have inefficient use of social resources, you always have a problem with accumulation, since there is never enough. It is obvious, then, that the general interests cannot be achieved, since individual interests oppose them, and there is no economic mechanism to reconcile them.

<u>Indicator</u>	<u>Industry</u>		<u>Economy</u>	
	<u>Serbia</u>	<u>SFRY</u>	<u>Serbia</u>	<u>SFRY</u>
Interest paid relative to income	19.71%	20.57%	16.22%	17.68%
Interest collected relative to income	5.34%	5.51%	10.84%	6.74%
[Line 1 - Line 2]	14.37%	15.05%	5.38%	10.96%
Interest paid relative to average social resources employed	6.44%	6.34%	5.52%	5.45%
Interest collected relative to average social resources employed	1.74%	1.70%	3.69%	2.07%
[Line 4 - Line 5]	4.70%	4.64%	1.83%	3.38%

The payment of a charge for use of socially owned resources is one of the elements of the economic definition of social ownership. If a portion of accumulation is collected externally into a particular fund and new work organizations are established from that fund which will employ unemployed workers, that would signify an altogether definition of social ownership. According to the present definition of social ownership, the effects by virtue of the institution of the owner are realized solely through the property of the work organization. If external accumulation did exist, that is, if it were effectively institutionalized, that would presuppose payment of a charge on the use of social resources. We abolished the general investment fund, and today it is pointless to advocate the introduction of that kind of general investment fund in view of the nature of our federation. However, a general investment fund at the level of the Republic of Serbia, for example, is an altogether acceptable solution. The task of that fund would be to facilitate access to social resources. Its purpose would be to establish new work organizations

which on the one hand would solve the problem of employment, while on the other it would provide allocation of manpower in the context of a self-managed economy.

EKONOMSKA POLITIKA: But wouldn't it be more logical and appropriate for a market economy for the work collectives to be put in the position of themselves creating new jobs, of investing in new factories themselves, and themselves taking care to invest their resources optimally and productively?

Labus: I think that there are several reasons why that cannot be achieved. The first reason is that unemployment is a macroeconomic problem, and micro-economic entities cannot solve it. The worker should not be glorified along those lines.

EKONOMSKA POLITIKA: I was not thinking that they would solve the problem of employment out of some kind of human sympathy or who knows what, but because they want to invest their resources in a production operation that would bring them some earnings, some profit.

Labus: Let us go back to what you said about why they themselves would not increase employment instead of establishing a new work organization. Work collectives are motivated, say, to maximize the gross personal income per worker. And when there is a shortage of the supply relative to the demand, prices are high, and then income is high, as are personal incomes. Why would the existing enterprises not increase their output at this point? That is against their interest.

EKONOMSKA POLITIKA: But a new enterprise will come into being.

Labus: But that is a different matter. The work collectives themselves would not establish an enterprise which will be their competitor. Since they will not do it, then someone else has to do it.

EKONOMSKA POLITIKA: But perhaps it will be done by the workers from other economic sectors. For instance, if some work organization is engaged in agriculture, but it sees that tourism is more lucrative, it could invest its resources to build a hotel.

Labus: They would have the motivation to do that if they could invest those collective resources in another work collective and derive a high return. However, when they pool their resources, they can never require such high yields, especially in the context of inflation. It pays them to invest in another work organization if all the yields from social resources come back to them, which means that the workers in the new work organization would not share in profit, but would have only their personal incomes, which would depend on their productivity. Then a conflict of interest arises, since the new work collective also demands some share in the above-average income which is the result of use of those resources. The existing work collectives would be motivated to invest internally or outside if they could appropriate all those yields. Since they cannot, they do not have the motivation. We should not ideologize the self-managing economy. It has its advantages, but also its drawbacks. We want it because of its advantages....

EKONOMSKA POLITIKA: I am afraid that the drawbacks are greater, at least judging by the situation at the moment.

Labus: But wait, whether the drawbacks are greater or not does not depend on the work collectives, but on how the economic system has been conceived. If it is conceived on the basis of the idea that a self-managed economy is the most ideal system, a system that generates only constructive results, then that kind of system has to have very bad performance. One must be objective and sober in looking at the self-managed economy. The workers as self-managers and work organizations as self-managed commodity producers have certain advantages, but there are also defects in their behavior. They are the ones that we have already mentioned: exclusiveness and inefficient use of social resources. If these defects are examined objectively, it is possible to make an economic system which will eliminate them. That is, leave the work collectives to be self-managing commodity producers, but reduce the negative effects in the conduct of their business.

EKONOMSKA POLITIKA: How?

Labus: That is exactly what I am going to talk about. The allocation of manpower over various economic activities cannot be accomplished solely on the basis of decisions of existing work collectives. New work collectives have to be established, and that through the existence of an investment fund. If that fund is to exist, there has to be some rate of accumulation which is paid externally as a charge for the use of social resources, and that fund should establish new enterprises where the supply is less than the demand, and where the prices are high. Those new work organizations should be competitors of those which already exist. That is, I advocate a different system of planning and a different institutionally defined system of social ownership, since the present system of planning does not presuppose either market selection or competition of economic entities. It presupposes the conclusion of self-management accords and compacts, in which every individual interest is legitimate.

EKONOMSKA POLITIKA: And are you certain that that (republic) agency will operate efficiently; our greatest investment mistakes were precisely the consequence of decisions made in political-managerial structures?

Labus: That is not a matter that lies in the economic system, but in the political system. After all, those who make the decisions about the use of republic investment resources have to be under the strict oversight of the users of social resources. That oversight is lacking now, and the political system has to work that out. In every state there must be an economic policy regardless of ownership. And the question might be put of whether you are certain that economic policymakers are doing this effectively. In the economic system there is no guarantee of that. It has to be sought in the political system.

EKONOMSKA POLITIKA: Under conditions like these?

Labus: Under conditions of every sort. That political oversight as to the use of resources does exist, and it must exist even in the case of social ownership. I have earlier advocated that that republic investment fund should

have a staff administration and an assembly in which major users of social resources would have their representatives and would annually confirm the policy of the investment fund at assemblies of that fund by secret ballot. If the policy is not confirmed, the staff administration of the investment fund would be out of a job.

EXONOMSKA POLITIKA: If the collectives had those rights, I think that they would be more concerned about where to invest their resources.

Labus: Well, even now the workers are concerned where they will invest their resources, and they always invest them in their own work organization.

EXONOMSKA POLITIKA: I was thinking of the possibility of all the workers employed in a factory having stock in it and then receiving a portion of their earnings as owners, through their share in the profit earned.

Labus: That could work even without stock. Now I will tell you something which is well known in theory, although not so widely. Our system of self-management is not the only one operating in the world. At one time we were very efficient, and everyone was making references to our system. Today there is another system which is more efficient than ours, but it is based on self-management. This is the system of production cooperatives, and the largest system of those cooperatives is in the Spanish Province of Basque, in the city of Mondragon. It has over 20,000 members of production cooperatives, and in addition to the production cooperatives there are also service cooperatives and indeed even a cooperative bank. On what principles does this function in that environment? In our country the workers, as we have said, do not share in the property risk. However, in the production cooperatives in Mondragon the owner's risk is divided. When a worker is hired there, he must purchase his job by paying 10 percent of its value, while the other 90 percent is financed from collective sources of the production cooperatives that already exist, from credit, and from certain government loans. If a worker does not have the cash, he borrows those resources from his future cooperative, and then he must repay it out of his personal income over a period of 2 years. This founding share of the worker is divided in such a way that 25 percent becomes collective property and goes into the reserve fund, while 75 percent remains his personal or private property, and that 75 percent is kept in what is referred to as an internal capital account. The average personal income in the cooperative has to be equal to the average wage earned on the capitalist labor market, and the wage spread can go as high as 1:3. The worker's second source of personal income is his individual internal capital account, on which 6 percent interest is paid every year. Moreover, that individual account is revaluated every year by the rise in the standard of living, so that its real value is preserved. What happens if losses occur, how is the owner's risk divided? Up to 30 percent of the loss is covered out of the collective reserve fund, but beyond that the losses are charged to the individual capital accounts, that is, they are charged to the property of the cooperating members. The property risk, then, is divided between the property of the individual and the property of the entire collective; this is a form that links together collective and private ownership, and the risk is divided accordingly. Our workers, however, do not have ownership rights over socially owned resources, but at the same time they do not bear the risk of owners either.

EKONOMSKA POLITIKA: How in our context is the efficient use of resources to be guaranteed, not only under such conditions as we have now, but also through some possible change of the features of the system?

Labus: It should first of all be understood that if we want market socialism, and in principle we do, there cannot be a market socialism with just one market--the commodity market. Since I believe that the labor market cannot function well under our conditions, this means that a market of social resources has to be allowed in some way. I am not advocating that the present banking system, interest and the free circulation of resources through the banks be abolished through the planning system. On the contrary, we should go further in developing that banking system and beyond it a market for social resources. This means that the banks should become independent work organizations doing business on the principle of profitability, that there would be no regionalization of the banks, and that they could go under.

Of course, if the banks do business on the principle of profitability, they will be looking only for those loans where the yield is highest, and we also have a need for other investments. That makes it indispensable to have another planned system as well that will operate through the establishment of new enterprises, the minimal rate of accumulation, and so on.

EKONOMSKA POLITIKA: You mentioned the importance of interest to the price of social resources, so would you please tell us something more about that.

Labus: Today it is very important to clear up relations in the area of interest. That is, the investment projects of work organizations are on the average financed 50 percent from their own resources and 50 percent from external sources. Accordingly, the burden of interest, which now seems very large, is half as great when it is computed on all the social resources being invested. What I am saying is that even today in most cases the yields are higher than the cost of interest. On the other hand interest is institutionally and legally regulated in absolutely the wrong way. Everyone today is complaining about the high rate of interest, but in the first line of the table (figures of the Social Accounting Service for 1984) we see that the share of interest in the industry of Serbia and Yugoslavia was about 20 percent of income, while in the economy the figures were 16 percent and 18 percent. But there is also the interest that is appropriated on the basis of resources which are pooled or placed in the bank (line two). If the two forms of interest are canceled out, the share of interest paid in income would be far lower (line three). However, if we do not cancel out the interest, since interest is paid out of income before net income is formed, while interest being collected goes into gross income, and thereby goes directly into net income. If interest were treated as a portion of accumulation and if this cancellation were done, the share of interest in income would be much smaller, and the burden of interest would also be much smaller. But that is not the end of the story. The last three lines show the ratio of interest to average social resources employed. It is evident from these figures that relative to total social resources the economy possesses interest does not represent any large burden. All of this indicates the extent to which our social resources have not been used efficiently. And now if the efficiency in the use of resources does not rise, but

the economy is compelled to pay interest, that is a pure loss, an expense, and in fact just another additional burden on inflation and income. That is, even today interest rates are not real, and if we abolish them we have only put back the veil and concealed the inefficient use of social resources.

EKONOMSKA POLITIKA: By way of conclusion let us go back to the beginning; on what scientific premises is your constitutional concept of social ownership based?

Labus: That constitutional concept is elaborated on the premises of the consensus economy or on the premises of the so-called theory of income, which completely precludes all markets except the product market and which sees the allocation of social resources and manpower on the basis of a pooling of labor and capital otherwise than through the market. That concept of social ownership, if I may so put it, is the ownership formula for carrying out the consensus economy that has "finally been found."

EKONOMSKA POLITIKA: The consensus economy has long ago been defeated in scientific circles, but only quite recently in political circles.

Labus: The consensus economy is being condemned by the public as well as by experts and politicians. However, if you look at our real economic and property system, it is still based on the basic principles of a consensus commission, and I argue that this is true not only of those laws enacted previously, but also of those solutions which are now being adopted in order to implement the Stabilization Program. The present system of planning and the system for realization and distribution of income are based on all the principles of the consensus economy. Certain specific final solutions have been changed, but they have not altered the economic mechanism, so that it brings about those solutions on its own. As a practical matter, then, we have normatively imposed that final solution on work collectives, and that is why the consensus economy continues to prevail. I am aware that that system has been developing for 20 years and that it cannot be changed overnight. I interpret the present solutions as a house that is half-built. In any case, it is a good thing that we have made a start, but it is still not certain whether we will go forward or backward.

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TRADE UNION LEADER ON RELATION WITH ARAB ORGANIZATIONS

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/Text/ Prague 13 Dec (CTK)--The deepening relations between the Czechoslovak Revolutionary Trade Union Movement and the General Federation of Trade Unions of Iraq (GFTUI) testify to the positive development of relations with trade union organizations in the Arab world, said Jan Lobersiner, secretary of the Central Council of Czechoslovak Trade Union who headed a delegation on a recent friendly working visit to Iraq.

"Iraqi comrades expressed interest in extending contacts to workers' collectives for the purpose of application of Czechoslovak experience and methods of trade union work. We assume that in 1986 delegations of Czechoslovak trade unionists from the textile industry, agriculture and the construction sector will visit Iraq. The results of our talks in Baghdad include a new agreement on the schooling of Iraqi trade union officials in Czechoslovakia. This will be a concrete contribution of the trade unions to the strengthening of Czechoslovak-Iraqi cooperation, interest in which was affirmed also by the recent visit to Iraq of federal premier Lubomir Strougal," Jan Lobersiner said.

The Czechoslovak trade union movement is expanding its relations with the member organizations of the international confederation of Arab trade unions which, as an independent continental organization, cooperates with the World Federation of Trade Union (WFTU). Since the 10th Congress of Czechoslovak trade unions, contacts have been fruitfully expanded with trade unions in the Yemen People's Democratic Republic, Syria, Libya, Kuwait, Algeria and Tunisia.

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KECMANOVIC DISCUSSES QUESTION OF NATIONALISM

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[Interview with Professor Nenad Kecmanovic of the Sarajevo Faculty of Political Sciences by Momcilo Djorgovic: "Hiding Behind Leftist Phrases"]

[Text] Dr. Nenad I. Kecmanovic, a professor at the Faculty of Political Sciences in Sarajevo, is a prominent, involved, and eagerly read author who was concerned journalistically with the problem of republic-provincial etatism even at a time when this was discussed much less openly than today. He is currently working on the subject of inter-nationality relations in inter-republic affairs, as part of a project of the Institute for Inter-Nationality Relations of the Central Committee of the Bosnia-Herzegovina LC, and he is completing the manuscript of a book on "Democracy and Centralism" for the Belgrade publisher RAD. In our conversation, he immediately emphasized that the thesis that "all nationalisms are equally dangerous" is widely misused today. "Everyone seems to have assumed the right to keep some nationalism in reserve -- another's as the alibi for one's own, or one's own as a response to the nationalism of others."

[Question] We insisted that he explain to us more explicitly this phenomenon of having binary concepts appear in political speech that try to relativize and pacify real events.

[Answer] Yes, we have a broad repertoire of quasi-dialectical syntagms that are used to maintain the status quo: "Nationalism is expanding, but unitarism is not diminishing either," or "The republic wants too much statehood and the provinces want too much autonomy," or "Republic-provincial barriers are growing, but forces who are bothered by the very existence of the republics and provinces have also raised their heads."

All of this is undeniably true on the ideological-theoretical level, but in order for us to undertake anything in practical politics, we would nevertheless first of all have to have at least a short-term ranking of the specific relevance of each of these diverse oppositionist ideologies and their proponents. We should simply see what is paining us acutely and what is doing so chronically, which danger is greater and which is lesser, at least for the moment, what is the cause and what is the consequence, what is primary and what is secondary. This, however, creates an atmosphere of panic and

general inferiority in the enemy encirclement, and a confusion in which one no longer knows on which side the blows are stronger.

[Question] It seems that earlier we were not so liberalistically dispersive and confused in political tempests.

[Answer] In the recent past, when we conducted some similar battles much more successfully, for instance against the Informburists, we were not as afraid of the triumph of the liberals. When we conducted the struggle against the Maspok, we did not disassociate ourselves as much from unitaristic triumphalism. And when we conducted the struggle against bureaucratic centralism, we were not as concerned with the satisfaction of the nationalists or ultraleftists. Tito's historic speeches at the crucial plenums at those times were in fact much clearer, more direct, more precise, more explicit, more unambiguous, more authoritative, and more direct than is the case with today's documents, which in and of themselves allow relativization in interpretation and outmaneuvering in implementation. They contain something for everyone, and so the separatists, for whom everything smells of unitarism and centralism, select extracts that criticize such deviations. The dogmatists, who associate everyone else with liberalism, left-wingism, and nationalism, pounce upon the passages in which such deviations are named. Thus everyone finds official support for conducting a witchhunt against some of their main opponents.

[Question] How can one explain in terms of political science the fact that we react very quickly in the case of nationalistic excesses in culture, schools, and cafes, while we speak cautiously, generally, and very vaguely about the disintegrative activities of legal organizations that incite nationalistic passions?

[Answer] Almost all ideological platforms are abundantly adorned with the leftist phrases of freedom, equality, democracy, justice, humanism, and progress, which camouflage their historical and excessively discredited conservative inspiration. In our current framework there is neither a nationalism nor a unitarism that is self-understood and self-defined; instead, both ideologies cite extracted fragments of the official political platform and take them "pars pro toto." Relying on critical assessments of federal centralism and bureaucratism, the nationalists proclaim our entire historical development until 1974 to be virtually a prison for the people, while the unitarists, relying on criticism of republic etatism, portray everything that happened after that as a brief survey of the collapse of the country. Since the self-managing socialist ideology of society and the communist ideology of the party reject both nationalism and unitarism, these two complementary factions on the right ensure themselves the right to public space by waving the same symbols of socialism, self-management, fraternity and unity, and equality -- the tricolored flag and star, the hammer and sickle. The fact that the right has to misrepresent itself in order to appear on the political stage is naturally a positive indicator of the extent to which leftist values have pervaded mass awareness and public opinion; at the same time, however, it also makes the ideological struggle more difficult.

[Question] Admittedly, we have exclusive renegades in whom we again and again embody right-wing aggressions, with reason or without, while rightist variants in some speeches by certain leaders are left without an adequate response, although they can cause great confusion.

[Answer] Well, it is not likely that just a few professors, writers, former revolutionaries, and dissidents were able to poison the atmosphere on the ideological front politically like this. Why should some current revolutionaries, political and economic officials, loyal intellectuals, and artists be exempt from this a priori? Naturally, except for very few exceptions, we will not find ideal-typical right-wingers from head to toe among either group. But here and there, nationalistic and unitaristic slogans are quietly voiced by those from whom we might least expect this. Figuratively, it could be said that the line of differentiation between those who are right-wingers and those who are not does not pass between people; it passes through them, moreover not bypassing those who are communists from top to bottom and in the opposite direction. About two and a half million organized members of the vanguard are occupying all of the strategic points that are at all significant. Party members are in the publishing houses and councils, in management boards and banks, in delegate assemblies, and in sociopolitical organizations, and the Constitution recognizes their leading role in society, and so the assumption that the right wing is on the offensive because the LCY is slow to react is really untenable. It seems that everything in it is in the best of order, and that the only problem is that the party, always a healthy force, does not act therapeutically in a prompt and effective manner with respect to the infected segments of its social surroundings. Maspok, irredentist, hegemonist, Pan-Islamic, and similar more or less nationalistic or unitaristic incidents, from the recent or distant past or the present, have shown dramatically that right-wing ideologies only achieve public expression and concrete political effectiveness if they obtain some sort of favor within the LC. As Lenin said, "Our greatest danger is from the scoundrels in our own ranks."

[Question] It seems that the party has forgotten about internal differentiation, in spite of such great and barely legitimized differences.

[Answer] Our communist vanguard, in the ideological, action, organizational, and political sense, is far from being enough of a homogeneous whole to be able to have enough of an integrating effect in society. We, let us say, at the level of the LCY do not have uniformly operationalized criteria, from one area to another, as to what is nationalism and what is unitarism here and now. We note that in some circumstances an equals sign is put between these two dangers; in others, nationalism is treated as a present danger and unitarism as more of a potential and reactive one. In still others, however, it is primarily the danger from nationalism that is mentioned, and finally, in yet other circumstances, it is almost exclusively the danger from unitarism. I am not in favor of any sort of uniformity that would fail to consider specific local features, differences in the material-economic level of development, and unequal democratic and cultural traditions, but I am also not in favor of taking the practice of any one area as an example and model for the rest.

[Question] In your opinion, what are the obstacles to more united action by the party?

[Answer] It is becoming more and more difficult for the LC to recognize the outlines of the global and historical proletarian interest. In other words, the working class has become so stratified along the social vertical axis and so disintegrated along the geopolitical horizontal axis that it is more and more difficult to establish its long- and especially short-term unity. It is much easier for the individual parts of it to become associated with local techno-bureaucratic structures in the republics, provinces, or opstinas than it is for them to unite with each other in a self-managing manner at the level of the entire country.

[Question] Do you mean to say that we have fallen into a vicious circle with decentralization, in the way that it has been carried out?

[Answer] The fairly prominent thesis that by suppressing federal etatism, centralism, and bureaucratism and falling into its republic-provincial counterpart we made some sort of historical step forward, is extremely problematical. By multiplying the number of alienated centers of power and abolishing a macro-unitarism, we created several mini-unitarisms. Or, which is completely the same thing, by abolishing the hegemonism of the most numerous nationality in the country, we unwittingly made room for the nationalism of the dominant nationalities in the republics and provinces. Naturally, I am only speaking of trends that can best be recognized in extreme situations, and so assigning a higher value to nationalism than unitarism, and the reverse, would be equally harmful if we claimed that the many years of activity by the irredentists in Kosovo represent progress in comparison with the situation in the province during the period prior to the Fourth Plenum in Brioni, or vice versa.

[Question] It is obvious that such a set of circumstances also has an effect on the party. It is federalized, and along with this there has also been great confusion over democratic centralism.

[Answer] The LCY kept the old inherited function of state leadership, but it did not master the new one, of ideological guidance. The power of the state is now strongest in the republics and provinces, and the party did not fight for the social power of the working class, which is weakest today at the national level. Identifying itself with the power of the state, the party also assumed a symmetrical set-up, and so instead of democratic centralism from the base to the top, elements of decentralized monopolitism are at work. I do not know what else I would call the situation in the united center of the vanguard, when its members, on one hand, can adhere to their original positions in spite of the opinion of the majority, and on the other hand, they display views that are highly identical in view of the republic (or province) from which they come. The lively dialogue at the plenums of the LCY Central Committee falls off sharply at our internal borders, within which one can sometimes note a degree of obligatory harmony that was not even characteristic of the classical communist party system. Thus, at the center of the LCY we can recognize the establishment of coalition relationships among the 8 autonomous parts, and in the republic-provincial organizations, mostly a

climate of unopposed unity. In the first case it appears that the principle of a minority when a majority cannot be established is dominant, and in the second, the principle of a majority completely without the existence of a minority -- which naturally is equally a deviation from democratic centralism.

[Question] All sorts of things are justified in terms of national interest, which has become dominant over social and class interest. In what way is the precedence of interests replaced?

[Answer] The bureaucracy is working on this, and it will very skillfully transform the vertical differentiation of interests, exacerbation of which is a threat to its existence, into a horizontal one, which favors its continuing and flourishing. First of all, through the ideological apparatus of the state (at the republic, province, or opstina levels), it persuades public opinion in its area that the source of all their misfortunes is not the local bureaucrats and technocrats, or the rest of those with legal privileges or even illegal usurpations, but rather the people over there in a different region of Yugoslavia, who are laying claim to "our" writers, exploiting our mineral wealth, recruiting our athletic stars, eating our grain, revising our history, taking away our foreign exchange, and ignoring our language. To a considerable degree, the people, the working class, can be deceived, and thus see their proletarian brethren from the other parts of the country almost as their political enemy. And then the politocracy says, "You see, we are not responsible for our not being able to consult and agree at all; the base has different interests, and it is up to us as their legitimate representatives to defend them uncompromisingly." Today it is therefore very important to determine when there really are historically inherited and present contradictions that actually exist between our nations and federal units during a transitional period, and which objectively are not minor, and to determine where the artificially created contradictions begin, which are much greater and which represent a purely bureaucratic-manipulative accretion.

[Question] In the recent discussions in the LCY Central Committee, it was shown that the method for electing candidates for the highest party forums should be changed, precisely for the sake of more united action.

[Answer] It is very important what becomes dominant -- the authority of the individual or the authority of the office. While our public scene was dominated by the generation of the historical leaders of the movement, the prominence of the forums was measured mainly by the revolutionary merits of the people who were active in them. Their loss or retirement considerably weakened the personal component of the authority of the party leadership. This can also be seen in the fact that the same statutory authorizations of the Central Committee and of the Presidium of the LCY Central Committee, which have not changed a bit, have now become institutionally insufficient for maintaining continuity -- the quality and intensity of the previous unity. It is well known that it was not only as the lifetime president of the party that Tito frequently intervened in inter-republic and provincial conflicts; the leaderships of the individual parts of the LCY also turned to him informally for arbitration.

[Question] Did Tito and the other leaders of the revolution have national reputations?

[Answer] Yes, but the current mechanisms for promoting new individuals to the party leadership, and the way in which they function in such positions, do not provide favorable opportunities for achieving authority throughout the entire LCY organization. It is not just that no one identified Tito as a Croatian; no one identified Bevac primarily as a Slovene, or Stari and Rocak as Bosnians, or Veljko and Tempo as Montenegrins, or Mosa as a Jew, or Koca as a Serb. They were revolutionaries, who under assignment from the party worked and fought from Moscow to Paris, and almost from one end of the homeland to another. Today a party official reaches the central bodies of the LCY primarily on the basis of the reputation that he achieved in his own narrower area, and moves exclusively along the vertical line opstina-city-republic (province)-federation, so that there is no opportunity to identify oneself more deeply and directly with the other parts of the country, and he perceives them less as his own. The present official of the highest rank in a republic goes to another almost exclusively as a representative in occasional bilateral meetings, or as a guest at some jubilee event at the borders or three-border areas. Consequently, his political authority also mostly begins and ends at the internal borders. While an engineer, doctor, worker, or teacher can change the republic or province to which he belongs without changing his professional status, so far that is almost impossible in practice for a sociopolitical worker, and not just in the LC.

Naturally, it is not written anywhere that this is not permitted, nor is it known that anyone is forbidding this. An indicative example of such conduct is the quite recent case of a political meeting in Vojvodina, where, among other things, dissatisfaction was expressed over the fact that a person with the reputation and abilities of Milos Minic was not part of the leadership of the republic, and it did not occur to any of those present that they themselves could elect him to a suitable post in the province, or delegate him to the republic or federation, even though he is not from Vojvodina. After all, at one time Stevan Doronjski was the secretary of the Belgrade city committee, and Dobrivoje Vidic was the secretary of the Vojvodina provincial committee.

[Question] Nevertheless, something is changing in the activity of the party leadership. Recently, a desire has been noted at the highest level "for united influence on certain acute divisions."

[Answer] You are obviously thinking of the conclusions from the expanded session of the Presidium of the LCY Central Committee, which truly opened up prospects for enhancing the disturbing relationships in Serbia. Nevertheless, the way in which even those documents are characterized by a certain lack of precision and incompleteness is demonstrated by the fact that, at least judging by the news media, the political structures in Serbia proper and in the provinces are interpreting the same materials in different ways.

It seems to me that one of the significant sources of disagreement is that there has not been sufficient systemic elaboration of the dual status of the provinces as integral parts of the republic and constituent parts of the

federation, or the unique internal organization of Serbia as a whole and its position in the Yugoslav community. In fact, these are very original solutions, without any precedent in comparative constitutional practice, the consequences of which could not have been predicted on the basis of direct analogies. Finally, the way in which they function in practice depends upon the concrete relationships that are established. In the present situation, when they are not good, it turns out that Serbia is handicapped in comparison with the other republics in establishing internal unity and playing a role in the federation, and that so-called Serbia proper is handicapped in comparison with the provinces, because they participate directly along with it -- indirectly but also completely autonomously -- in decisions that apply to the whole country, while Serbia proper only does this in the first manner. In some future situation, when, let us say, relations within this republic are optimally good, on the basis of the same normative assumptions Serbia could also be privileged in Yugoslav relations, since it would have triple representation -- both as a whole and through each of its two autonomous parts. This again would quite certainly not be consistent with the equality of the rest of the republics, and certain fears are obviously already present in advance in some current views and behavior. In my opinion, the conclusion to be derived from this is not that it does not matter what the system is but what the practice is. Quite the opposite: normative solutions that permit some to be harmed or favored today, and others tomorrow, are not good. Consequently, this subject should be regulated in the appropriate provisions of the Constitution in such a way as to prevent any deviation from what is expected.

[Question] There is a belief among the public, which has also been expressed in one of the interviews in this series of ours, that halting the emigration from Kosovo would be more effective if there were not, to some extent, a lack of broader and more united involvement from the whole country.

[Answer] More directly stated: if it were being solved less as the problem of one republic-provincial area, and more as a national problem.

Why is that so? Well, because the trends that have been brought to the boiling point in Kosovo are only those that are also more or less present, at a lukewarm temperature, in the other republics. Republic-provincial etatism, to the extent that it is or has been present everywhere, strives to establish a symmetry: one state, one territory, one nation, one culture, one language, one script, etc. And then it would be up to those who do not belong to the majority to be assimilated or to pack. For example, some of the Serbs, Montenegrins, Moslems, Gypsies, Turks, etc. have left, while others helped irredentism by keeping silent; some have been expelled from the political structure because of their public protests, while others voted for the expulsion in order to remain in that structure. We also had similar symptoms during the time of the Maspok. Isn't it in this context that one should view the incidents in our most developed republic concerning the "strangers" [Slovene word in original], who as outsiders or strangers from other parts of Yugoslavia have to be integrated in language, education, and culture if they want to remain? Next there is what can break out between Serbs and Vojvodina Serbs, which was recently discussed by Slobodan Selenic. Even the so-called Bosnian spirit was proclaimed at one with the categories of "natives" and

"outsiders." Finally, hasn't the last census indicated migrations of peoples toward their parent national states, and autonomy as a general Yugoslav trend?

Naturally, it does matter whether this nationalism-unitarism raging throughout Yugoslavia will be manifested in individual excesses or whether it will assume widespread dimensions, whether it will voice itself through literary lies, scientific falsification, journalistic bias, and verbal crimes at cafe tables, at a private meeting, in personal correspondence, or whether it will assume the form of savage physical violence and the organized and systematic driving of people from their own homes.

And the extent to which the problem of emigration under pressure is viewed as something that cannot happen to us tomorrow and does not affect us directly today only shows how far we have gone down this dangerous path. But to tell the truth, these negative assessments are being exaggerated today, since, finally, if the opposing integrative trends were not only present but even relatively stronger, we would have collapsed long ago.

[Question] If I understand you, you are advocating united involvement by the party throughout the entire territory of Yugoslavia, in line with the positions at one of the recent plenums of the LCY at which there was a discussion of the working method of the revolutionary center of the LCY.

[Answer] Of course, since the party leadership of the LCY, according to the constitution, is neither above nationalities nor above the republics and provinces. The Central Committee consists of people who live and work in the republics and provinces, on a parity basis, and its Presidium includes, among others, the presidents of all of the 8 autonomous parts. These bodies thus do not have the classic Politburo structure, the personnel of which are strictly separate from the lower levels of the ladder of party leadership. Consequently, more frequent and more energetic involvement by the Presidium and the LCY Central Committee as a united revolutionary center in solving problems in the republic and provincial organizations should by no means be understood as intervention from above that violates autonomy.

[Question] Perhaps we could conclude the interview by saying something about the specific features of internationality relations in Bosnia-Herzegovina?

[Answer] Bosnian-Herzegovinian cultural creators of Croatian and Serbian nationality are establishing very intensive cooperation with publishing, information, and other institutions in Zagreb and Belgrade, as the traditional centers of the Croatian and Serbian national states and cultures. In certain cases the cooperation is even more intensive than with the corresponding institutions in the republic in which they live and work. Such cooperation may be one of the forms of an inter-republic rapprochement or ties between cultural workers, regardless of administrative frameworks. And perhaps this has something to do with the other republic center offering somewhat more spiritual breadth and intellectual tolerance, since these are culturally developed areas with a richer democratic tradition and a relatively mononational structure, which is less sensitive than the one in Bosnia-Herzegovina, which is markedly multinational. All of this perhaps

impoverishes our narrower area, but it also stimulates greater creative efforts in it.

Another aspect, however, is covered by the research that I began for the Institute for Internationality Relations of the Central Committee of the Bosnia-Herzegovina LC. There have been incidents in which the participants ostentatiously disassociated themselves from the policy of cultural pluralism and internationality tolerance that Bosnia-Herzegovina is trying to follow. But there has also been behavior characterized by inadequate reactions to repeated personal and nationalistic pressures from powerful individuals, informal groups, and cliques, which are more or less present everywhere and in every profession, instead of directly, publicly, and bravely exposing the problems in the right place, i.e. where they broke out.

There is also something that could be very dangerous, namely that the traditional national urban centers outside Bosnia-Herzegovina are turned to for support because of a quite subjective or simulated feeling of being oppressed by the Moslem intelligentsia. But the opposite is true, however -- greater abstention by creative individuals of Serbian and Croatian nationality from the spiritual life of the area of Bosnia-Herzegovina should legitimately lead to such undesirable disparities. Furthermore, it has occurred that individuals and groups from news, publishing, and other institutions outside this republic have manipulated the national feelings of young cultural workers from the ranks of the Croatian and Serbian peoples in Bosnia-Herzegovina, which, after a final political clarification at the highest level, has always costed the manipulated more than the manipulators. Finally, it should be noted that even certain individuals from the official structures of all three areas have contributed a great deal to this negative politicization of intranational cooperation in transrepublic relations here and there. It is significant that previous analyses of this cooperation have often stressed only either the positive or the negative aspects of this cooperation, and so the ambition of this research is to shed light on them more extensively and objectively, and thus contribute to the development of unity and equality in Bosnia-Herzegovina and the SFRY.

9909

CSO: 2800/9

SERBIA'S YOUTH PAPER SNAPS BACK AT COLONEL'S ALARM

Belgrade NOVE OMLADINSKE NOVINE in Serbo-Croatian 3 Nov 85 p 4

[Commentary by Slavisa Lekic: "The Army Is Playing a March ... Struggle Is Not Always Shooting"]

[Text] "... left, left, left..." (Mayakovsky, "Left March")

Mikhail Bakunin, probably Marx's severest opponent, condensed his life's creed into a single sentence: "Who is not with us is against us."

Janos Kadar gained political glory, among other things, by turning this thesis on its head into a genuinely democratic slogan: "Who is not against us is with us."

Col Gaja Petkovic, editor-in-chief of NARODNA ARMIJA, has also succumbed to the temptation to turn a thesis on its head, evidently intentionally. His publication recently offered the "military public," and other interested parties via the poetically-titled "political chronicles" of certain dailies, a new "doctrine" for opposing "penetration by domestic enemies." The idea is very simple and logical in a military way: "Who is not with us is going to get shot at."

Expanding on the topic of "disturbing growth in the production of enemies" in an editorial headed "The Revolution Under Attack" in the latest issue of NARODNA ARMIJA, official publication of the Yugoslav People's Army, Colonel Petkovic calls upon the "revolution" to trade in the worn-out methods of "fight a book with another book, ... an article with another article," and "fight an argument with another argument" in favor of the new doctrine of the "firm paw," in the name of the revolution and revolutionary achievements.

Responding to a few of the latest not-exactly-ephemeral military/political "incidents," and referring in particular to the realm of "spiritual creativity," or rather "a segment of the press and serialized and memoirist articles," Colonel Petkovic in his editorial avoids the usual methods of administrative labelling and disqualification, permitting himself to invite the class-conscious and revolutionarily-inclined into a genuine battle against the "combined forces of the enemies of our society."

"The time has come," writes Colonel Petkovic, "to ask ourselves whether the enemy can be neutralized by defensive tactics, just by defense against attacks and political phraseology. Can we fight the enemy this way indefinitely? The answer, of course, is negative. If we are to defeat the enemy, if we are to keep the reins in our own hands in the increasingly-open ideological struggle, we are obliged to resort more often to severer measures of revolutionary democracy."

Expertly citing Tito, Colonel Petkovic offers a "cure" in the same text. The Yugoslav People's Army is the armed guard of the revolution and, on its own, would have to be the guard of the future of that same revolution "in the interest of preserving the revolution's achievements." Naturally, with the widest possible use of "severe measures of revolutionary democracy."

The Yugoslav People's Army, with all its authority, is a fully-recognized arbiter in society. This institution, if I may call it that, is a governmental entity in the way in which it is organized and led and a people's entity in terms of its personnel. Rarely since its establishment has the Yugoslav People's Army been put on alert status because of "penetration by a domestic enemy." The Yugoslav People's Army would be difficult to describe as ever having operated as a force on its own, or having traced out a militaristic path. To be sure, any discussion of socializing defense has been skillfully blocked, any grass-roots criticism has been labelled in advance, the "background" to any incident was always an object of search, and equating the withering-away of the state with the withering-away of the Yugoslav People's Army continues to be regarded as heretical stupidity. However, it is beyond belief that Petkovic's reaction, which is surely out of proportion to the deeds and efforts of Yugoslavia's enemies, has any connection with the latest Yugoslav "hedhog" doctrines. Just as the realm of creativity cannot be regulated exclusively by criminal law, so also "revolutionary achievements" cannot be preserved by "severer methods of revolutionary democracy." This ideological war is too tedious [otuzan] a matter for even colonels to become involved with it.

There is no justification, of course, for all that has been happening in recent months on the "nationalistic bar counter." Not only the "military public" is upset over the nationalistic-physical-Splittish abuse of military cadets. If this "proclamation" is just part of political training for military personnel, or perhaps a smokescreen to conceal the mistakes of "military authorities" in the Martinovic case and the Colonel Ivanovic [military investigator in Martinovic incident] case and to disavow Dr Sava Skovo [retired officer and reviewer of much-criticized book by historian Veselin Djuretic], then it should have been wrapped in a slightly-smarter coating than a call for employing "severe measures of revolutionary democracy."

One should believe (nice phrase, isn't it?) that we will not get a "military attitude" into our heads, in addition to "nationwide defense" and "administrative" attitudes, in relation to provocations of whatever kind when we have not yet exhausted legal forms of ideological struggle.

Naturally, one should also believe Stanislaw Lec [Polish writer of aphorisms] that "not every bullet fired proclaims a revolution."

Sometimes people miss the target.

One should believe in that, too.

/12913

CSO: 2800/89

AUTOMATIC PCB TESTING SYSTEM DESCRIBED

East Berlin FEINGERAETETECHNIK in German Vol 34 No 8, 1985 pp 343-345

[Article by A. Stopp, engineering diplomate, Center for Research and Technology, Berlin-Treptow VEB "Friedrich Ebert" Electronic Equipment Combine: "Automatic Testing Using Self-Diagnosis Method"; paper with same title delivered at the 7th Scientific Conference held at the Mittweida Engineering College from 3 to 5 Sep 1985]

[Excerpts] Self-diagnosis methods are cost-effective means for functional testing of printed circuit boards [PCB's] filled with components or of complete instruments. Based on experience in using combined external and self diagnosis, the concept of testing future microelectronic products by using an automated tester controlled by computer and a special emulator has been developed further and presented. The system consists of a testing computer (development system), emulators and simulators controlled by a computer.

The testing system is used for functional testing of PCB's filled with components, single computers and multicomputer systems. The hardware and software components and the test flow are presented.

1. Prerequisites for Self-Diagnosis after the Manufacturing Process

--Self-diagnosis requires a functional hard core usually consisting of parts of the CPU [central processing unit]; the data, address and control bus; and parts of memory, but which at least can be halted (program organization).

--Self-diagnosis of control equipment after the manufacturing process presupposes as a rule process simulation on the process side.

2. Combined External and Self Diagnosis

By the following step by step diagnosis and hardware oriented to it, the prerequisites cited can be created:

- external diagnosis at least of the hard core
- self-diagnosis without process interface
- self-diagnosis of process interfaces with simulation.

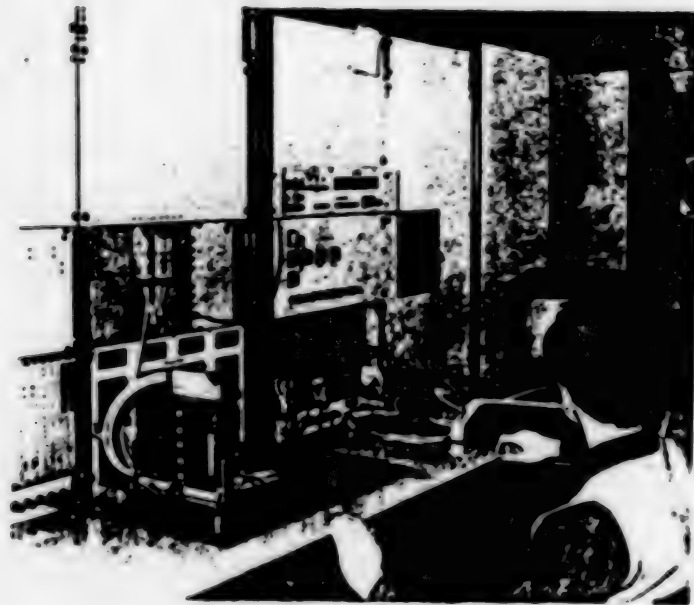


Fig. 1. PFG 60 tester, controlled by a microcomputer, for testing functions and localizing faults in card slots in the Ursalog 5000 system

3. Combined External and Self Diagnosis in the Ursatron 5000 System

For PCB testing, the Ursatron 5000 system includes the PFG 60 automated tester (fig. 1) with general-purpose testing peripherals and for equipment testing, the GEP 10 basic unit tester (fig. 2 [not reproduced]) with special testing peripherals (fig. 3 [not reproduced]) tailored to the system.

Both have a special PCB (ICEM [integrated circuit emulator]) which operates together with the ZRE [CPU] and RAM [random access memory] of the testing computer system as an emulator and is used for self-test control. Adaptation is performed to the CPU (U 880) in the unit under test or through a bus adapter to the bus of the unit under test (K 1520 bus) or to a ZRE [CPU] slot.

Functions:

- interface switching
- dead-end of soldered-in CPU in unit under test
- side control of 16 memory and 8 I/O address ranges between the system and the unit under test
- start or interrupt of self-diagnosis programs in the unit under test by using a system programmed RESET, NMI, and INT with vector tracing.

The functions implemented made possible a flexibly automated flow of alternating external and self-diagnosis. During external diagnosis, the CPU in the unit under test is shut down and the system CPU tests through side control at least the modules and functional groups belonging to the hard core.

After a successful test, the self-diagnosis programs loaded in the unit under test are started according to the compiled program, whereby the system computer monitors the diagnosis timing and interrupts u. U. [if need be]. The results are read out by the system computer and shown on the monitor.

4. Concept of Testing Equipment

Based on experience with the Ursatron 5000 system testing equipment with the combined external and self diagnosis, the following aim should be pursued in future: The testing equipment should be made to a large extent of general-purpose modular hardware and software components and leave free space for adapters contingent on development. The concept is aimed at standardization of equipment in

- development

- production and

- service

and allows within production yet again standardization of equipment for

- equipment testing

- PCB testing (assumption: short-circuit test and similar pre-tests are run on an in-circuit tester) and

- manual testing.

4.1. Hardware Components

The testing equipment consists of a development system with the following components (fig. 4 [not reproduced]):

- testing computer (development system)

- emulators

- process simulators

- real-time storage for bus analysis.

- Testing Computer (Development System)

This system consists of a computer, display screen, keyboard, floppy disk drive and connections for emulators (serial interface; different types of CPU's; multicomputer testing), process simulators (serial interface), real-time storage, printer, and auxiliary equipment.

- Emulator

The emulator includes the emulator CPU, emulation storage, halt-point control and trace storage.

The following functions should be implemented through the emulator:

- shutdown of soldered-in CPU

- CPU emulation

- replacement of ROM [read-only memory] in the unit under test by emulation storage

- signal recording and representation of all CPU interface signals and of synchronization signals in multicomputer systems.

The emulator in mind is one like the concept described in [1].

--Process Simulators

Process outputs analysis and process input stimulation is required for process interface testing.

Simple signal feedback of outputs to the inputs or feedback through simple simulators is the aim, but not applicable in every case.

True process reproduction with full adaptation has to be dismissed because of expense. The simulators have their own computer and are connected to the testing computer through a serial interface. The parameters of the pin electronics for stimulation or evaluation of the process inputs and outputs are determined by the variety of PCB's to be tested. The simulation is limited as a rule to the functional oriented evaluation or generation of a relevant test pattern.

Suited for this are, e.g.:

- general-purpose computer controllable digital simulators and
- general-purpose computer and manually controllable analog simulators.

5. Summary

The concept offers the possibility of meeting the growing demand for testing equipment by increased use of self-diagnosis with a testing system built from modular general-purpose components. Coming as additional support is that in modern products controlled by microprocessors, increasingly more testability and self-diagnosis firmware is being implemented to raise fault tolerance or even just repairability. The chief task of the function test after the manufacturing process lies in future between the closed in-circuit test and the beginning of use of self-diagnosis firmware.

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8543

CSO: 2302/100

ELECTRONICS EQUIPMENT DEVELOPMENTS SURVEYED

East Berlin FEINGERAETETECHNIK in German Vol 34 No 8, 1985 pp 352-353

[Article by L. Hoedtke, engineering diplomate, Mittweida College of Engineering: "Scientific Results of Mittweida College of Engineering Students and Young Scientists"]

[Text] The scientific productive activity of the students and young scientists is mirrored in a number of developments of devices and other exhibits which are shown and offered for later use annually at the various exhibits and fairs.

The following selected efforts characterize the spectrum currently worked:

1. LADIS Laboratory Automation Instrument

The exhibit is an instrument for laboratory automation for digital in-circuit tests based on the K 1520 system. The tester is intended as an auxiliary device for handling numerous test equipment tasks, e.g. as a tester for digital circuits, conduction tester, in-circuit tester and as a general-purpose programmable word generator for a data width up to a maximum of 40 bits.

This instrument features simple programming and operation. It can be used in the "periodic" and "step" modes of operation. The instrument has merit as an innovation in the GDR.

2. Adhesive Bonder for Integrated Circuit Assembly

The adhesive bonder is intended for surface bonding of IC's to mounting strips and other substrates. On areas from 100 x 100 micrometers to 10 x 10 mm, homogeneous coatings ranging from 3 to 30 micrometers can be implemented.

This instrument, operating on the basis of combined relief and flat printing methods, features high dosing accuracy for highly viscous material (glue, paste). It also offers the capability of implementing structures with a minimal line width of 100 micrometers. Among other things, the device is intended for use in laboratories which manufacture hybrid circuits on their own.

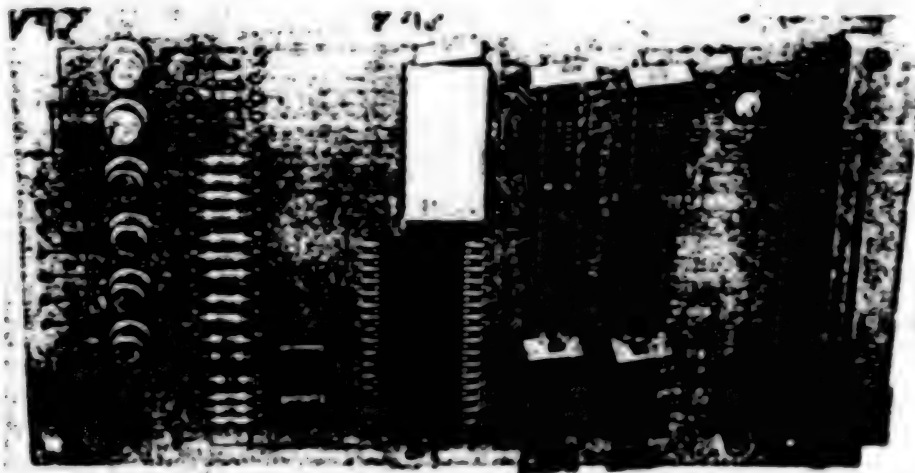


Fig. 1. Single-board computer

A simplified version of the exhibit can be offered.

3. Single-Board Computer

A single-board computer (fig. 1) was developed by using the U 880 single-chip computer made by the Erfurt Radio Plant VEB. The circuitry allows direct connection of a keyboard (20 keys) and control of a six-part seven-segment display.

Ports 0 and 1 are used for this. Ports 2 and 3 on the U 880 single-chip computer can be plugged into any digital process inputs or outputs.

All programs needed for computer operation are stored in a 2716 EPROM (2K bytes). Memory expansion is possible, but not planned.

The single-board computer is a general-purpose unit which allows solving small control problems. Programs allow easy adaptation to a process environment.

4. CT 880-1 Test Equipment Controlled by Microcomputer

The CT 880-1 modular tester, controlled by computer, was developed for testing modern electronic assemblies and devices in scientific instrument making. See page 373 for more information on this device.

5. Measuring and Test Computer for Education

This exhibit (fig. 2) includes expansion boards for the K 1520 computer to drive an ENDIM 620.02 x-y recorder, an LA 8/10 logic analyzer and an analog-to-digital/digital-to-analog converter.

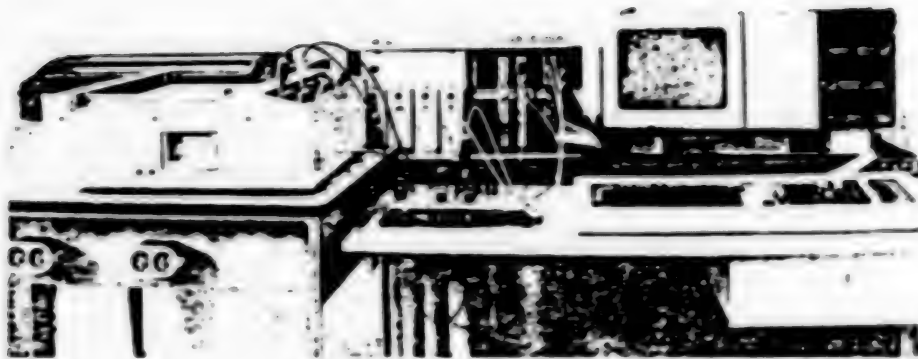


Fig. 2. Measuring and test computer for education

The physical and logical device apparatus recorders run under the UDOS and SCP operating systems. The logic driver can be called by using BASIC through a standard interface. Menus allow relatively simple use and are used to select service programs.

6. In-Circuit Tester for Laboratory and Service

This instrument (fig. 3), controlled by microcomputer, is used to test the functions of digital circuits (SSI/MSI) while connected. It operates according to the back-driving principle and also performs pre-tests relating to technological faults present in the field around the circuit.

Implementing the test method in a small tester allows use in the laboratory and service.

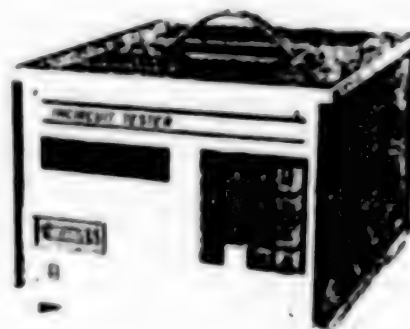


Fig. 3. In-Circuit Tester for Laboratory and Service

7. Patient Heartbeat Monitor

This instrument is used to monitor heartbeat within adjustable bounds. In a pulse generation stage, the EKG signal is converted into a rectangular signal of defined length; then the period duration is measured by a pulse counter and evaluated with respect to the preset bounds.

This unit ensures constant monitoring of patients and triggers an alarm in conditions threatening life.

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LASER SCRIBING OF SEMICONDUCTOR WAFERS

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[Article by B. Laemmel, doctor of engineering and doctor of pedagogy; G. Zscherpe, professor and doctor of science, Mittweida College of Engineering, Technology of Electronic Equipment Construction Division; and P. Fricke, doctor of engineering, Center for Microelectronics Research and Technology, Dresden]

[Excerpts] In manufacturing microelectronic components, structured semiconductor wafers have to be diced into chips.

The techniques for this include either a scribing diamond tip or a rotating cutting disk. The last method especially delivers high rates of productivity with yields of almost 100 percent in the dicing process, when the process variables of the diamond saw, scribing power and breaking pressure are known and can be controlled. Diamond tips or disks induce in the semiconductor wafer in addition to material removal sufficiently large mechanical stresses so that chips can be diced by a force perpendicular to the scribe groove. Lateral expansion of residual stresses remains limited to the free space available so that adjacent components are not endangered.

From 1970 to 1974, a number of Soviet enterprises [1] to [3] and American firms [4] to [7] switched to laser scribing after laboratory work proved that equivalent results can be obtained with a laser. In this case, material removal is achieved by vaporization and these three factors have a positive influence on the break process:

- reduction of the sectional area
- formation of a stress concentrator
- alteration of the strength of material in the vicinity of the scribe line.

With a laser, the vaporization process can be regulated so that no thermal or other harm is done to the components bordering the scribe line.

Of the lasers available, the efficient Nd: YAG laser has proved itself for the following reasons:

- The laser beam with a wavelength of 1.06 micrometer is absorbed by all semiconducting materials adequately;
- The required pulse power flux intensity $S > \text{or} = 10^8 \text{ W/cm}^2$ at pulse effect times of $\tau = \text{about } 100 \text{ ns}$ are achieved;

--The pulse repetition frequency up to 50 kHz enables high processing rates;
 --Focusing the laser beam to a spot diameter of $d \approx$ about 25 micrometers guarantees minimal scribe line widths.

1. Experimental Investigation

The experiments were conducted on unstructured Si semiconductor wafers with various surface orientation, doping and geometry with a Nd: YAG laser. The goal was to find answers to these questions:

- Which laser parameters (mean power, pulse repetition frequency, processing rate, focusing parameters) should be selected to achieve a high chip yield?
- How do the scribe groove width and depth depend on the laser parameters selected?
- How large is the laterally distorted zone (stress concentrator)?
- How does the semiconductor wafer behave overall when a scribe lattice is produced by using a laser beam?
- What effect do different crystal orientations have on the removal process?
- How do different doping concentrations affect the optical properties of semiconductor wafers and thereby the energy deposit in semiconductor material?

The laser parameters of mean laser power P_m , laser pulse repetition frequency ν , processing rate ν_a and focal length of the focusing optics f were varied within the following ranges:

$$\begin{aligned} P_m &= 0.35 \dots 3.0 \text{ W} & \nu &= 3 \dots 20 \text{ kHz} \\ \nu_a &= 7 \dots 50 \text{ mm}^{-1} & f &= 25 \text{ mm and } 75 \text{ mm} \end{aligned}$$

For the technological characteristic values of linear energy density LED, linear pulse density LPD and cutting power CP

$$LED = \frac{P_m}{\nu_a}, LPD = \frac{\nu}{\nu_a}, CP = LED \times LPD$$

the following ranges are produced from the values P_m , ν and ν_a adjustable at the laser

$$\begin{aligned} LED &= 7 \cdot 10^{-3} \text{ to } 0.43 \text{ J/mm} \\ LPD &= 6 \cdot 10^{-1} \text{ to } 2.86 \text{ P/mm} \\ CP &= 4 \cdot 10^{-5} \text{ to } 1.23 \text{ J} \cdot \text{P/mm}^2. \end{aligned}$$

The essential element in the process is the processing rate ν_a since it determines laser scribing productivity.

A selection of sample materials investigated is shown in table 1 [not reproduced]. Light microscopy and roentgenography were used as characterization methods. The wafers processed by laser were observed by a bright field of reflected light. The formation of the scribe lines were examined, the width measured and the processing depths determined on the separated chips through a microscope. Observations were made at an overall magnification from about 200:1 to 300:1. Warping on some typical wafers after the laser scribing was

determined. By wafer warping, we mean interplanar warping which was obtained according to the horizontal method with $\text{MoK}_{\alpha 1}$ radiation and a 220 reflex. The roentgen topographs made were used to measure the width of the disturbed or distorted areas.

The wafers were placed on PVC film and separated on a rubber base. The dicing yield was determined from the number of separated chips not damaged.

2. Experimental Results and Discussion

Material removal for sample 1 with respect to the (110) fracture and (111) crack plane is compared in fig. 1 [not reproduced]. There were different depths of removal. Removal depth h_r at constant scribe rate v and constantly maintained laser power P is a function of the pulse repetition frequency. This relation determined experimentally is shown in fig. 2 [not reproduced]. With that, it should be noted that by varying the pulse repetition frequency ν , the pulse power P , and the pulse overlap are varied at the same time and thereby determine the function curve shown. The "nicks" visible on the light microscopic photograph are attributed to the power flow intensity fluctuations of the Nd: YAG laser. With an increasing pulse repetition frequency, fewer of these "nicks" appear. This material removal in addition to the thermally induced stresses is a decisive value for the dicing process. The scribed silicon wafers are placed on PVC film and separated on a rubber base. The yield is determined from the number of chips separated with no damage. Removal depths of $h_r > 50$ micrometers were required to achieve a chip yield of 100 percent. For a silicon wafer 200 micrometers thick (samples 1, 7, 8 and 9), the chip yield as a function of the removal depth is shown in fig. 3 [not reproduced].

From such representations, the required scribe line depths for different wafer thicknesses could be assumed by approximation. In the neighborhood of a critical value for the removal depth h_r , the chip yield can diverge relatively strongly. In this case, influential factors can be focusing varying with wafer warping, laser power flux intensity fluctuations or a nonuniform surface.

In addition to a chip yield of a 100 percent, the peripheral area phenomena in the vicinity of the scribe line are an important factor which are based on the thermal effects of the laser. The first evidence on the width of the thermally affected zone is being obtained by using light microscopic studies. By a thermally affected zone, we mean in this case the dark coloring on both sides of the scribe groove visible in the bright field of reflected light. From such photographs, the relation of the width of the thermally affected zone to the scribe line width was determined for various laser parameters. The irreversible thermally affected zone, evaluated by light microscopy, can be two to three times the scribe line width. Choosing an objective focal length of $f = 75$ mm compared to $f = 25$ mm yields the advantage that in the peripheral areas, there is less damage due to lower temperature gradients and comparable removal depths can be achieved by an adjusted increase in power flux intensity. At the same time, a larger objective focal length means that fewer Si particles are spattered over the wafers. Fig. 4 [not reproduced] shows a raster

electron microscopic photograph of a scribe line on sample 9. The particles spattered on the Si wafer have a diameter from 5 to 10 micrometers.

Further evidence on the size of the irreversible thermally affected zone can be obtained by using roentgenographic studies. Fig. 5 [not reproduced] shows a roentgen topograph to determine the width of the disturbed zone for sample 1. Toward the $\langle 211 \rangle$ orientation, it is about 180 micrometers and parallel to the $\langle 110 \rangle$ orientation, about 100 micrometers. The photograph was obtained according to the horizontal method with $\text{MoK}_{\alpha 1}$ radiation and 220 reflex in transmission.

By using etching methods and previous sample annealing, similar values could be established for the width of the irreversible affected zone.

The concave warping of the semiconductor wafer observed after the laser processing and measured roentgenographically allowed evaluating the stress on the overall semiconductor wafer. The results of these evaluations according to [8] with the required computational values of the elasticity modulus E_{Si} , wafer thickness h_{Si} and warp radius $r_{k, \text{Si}}$ are drawn for samples 1, 2, 5 and 7 in table 2 [not reproduced]. For the range studied, the laser parameter was averaged over the warp radius so that rough estimations were used in the calculations. The stresses caused by the wafer warping, however, are of great importance to the dicing process.

The highest power flux intensities used for these experiments on laser scribing reached values of about $8 \cdot 10^8 \text{ W/cm}^2$. From theoretical estimates for forming shock waves in silicon, additional destruction of Si wafers should be expected for power flux intensities $> 10^9 \text{ W/cm}^2$.

3. Conclusion

From these experimental investigations on scribing of Si wafers, these laser requirements follow:

wavelength	$\lambda = 1.06 \text{ micrometer}$
continuous wave power	$P_{\text{cw}} = 50 \text{ W}$
pulse length	$\tau = 30 \text{ to } 200 \text{ ns (quality switched)}$
pulse repetition frequency	$\nu = 3 \text{ to } 50 \text{ kHz}$
scan rate	$u_s = 200 \text{ to } 1,000 \text{ mm/s}$

In addition, there are focusing optics, beam expander, mode screens, measuring technology and the required handling system for automating the process.

With such a laser, in addition to uncoated, Ni-coated, SiO_2 -passivated, glass-passivated silicon, sapphire and GaAs can successfully be scribed.

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ELECTRONIC EQUIPMENT CONSTRUCTION CENTER DESCRIBED

East Berlin *FEINGERAETETECHNIK* in German Vol 34 No 8, 1985 pp 362-363

[Article by K. Sass and L. Hoedtke, engineering diplomates, Mittweida College of Engineering]

[Excerpts] Current Education and Research

Under the conditions of a policy concerning college education which is continually being adapted to the latest requirements, a Center for Making Electronic Equipment was established at the Mittweida College of Engineering on 1 July 1983.

With that, the Center's purpose is to make modern research equipment, controlled by microelectronics, and make it available to a wide circle of interested parties, especially in the system of higher education. At the same time, the students are familiarized very early with scientific and technical work close to practice and can now assimilate education acquired from studies.

Especially characteristic for the work of the Center at present are:

- development and construction of modular electronic systems for laboratory and experiment rationalization, and
- manufacture of PCB's as the essential base for modern scientific devices.

The program includes at present, among others, the development and manufacture of the following devices:

--Laboratory Computer System

With the development and construction of special accessory modules for a laboratory computer in the Center for Electronic Instrument Making, a powerful and universal microcomputer system is being made available for applications in teaching and research in GDR colleges and technical schools.

Available as auxiliary modules are analog-to-digital and digital-to-analog converter components for adaptation between analog processes and digital processing units. Essential parameters are the resolution from 8 to 14 bits and the conversion rate.

Other system components are a graphics unit to display functions, measured values and diagrams, a case with 16 slots to accept expansion boards and a programming module for the μ P.L.S. circuit.

--Optical Power and Level Meter with Digital Display (Fig. 7 [not reproduced])

This instrument was developed at the Mittweida Engineering College and is intended for determining the optical power and the optical level in lightguide transmission systems.

Specifications:

dimensions	250 x 240 x 140 mm (EGS [unified mounting system] case)
operating voltage (supply voltage)	220 V
power consumption	25 W
sensitivity (for optical power)	1 nW
operating wavelength	0.85 micrometer
measuring dynamic	60 dB
level display	in dBm
light source	LED; for DC and AC light modulatable switches in two power stages
connectors	standard 4.5 mm ϕ .

The power meter was designed in a sort of "pseudo modular technique."

Wiring the six modules of the optical power and level meter together produces a maximal version that operates in an optimal or economic range according to the needs of the operator.

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CONSTRUCTION OF ACCELERATOR AT BORIS KIDRIC INSTITUTE

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 24 Oct 85 p 2

[Article by L. Cocaj: "Science Fiction Becomes Reality"]

[Text] Specialists of the "Boris Kidric" Institute in Vinca spent 5 years preparing the project for construction of the accelerator installation at Vinca. By all appearances what was imagined will become reality over the next 5 years. This would not be a surprise, although it will not be easy. At last science and the economy and medicine are working together.

"Building accelerators is incidentally not something unknown to our economy. To be sure," Stevan Koicki of the institute in Vinca emphasized, "Yugoslavia does not have a single very sophisticated machine, but it is an important exporter of components. 'Rade Koncar' of Zagreb is a recognized components manufacturer. Yet even here our well-known habit of exporting the components and importing the accelerators has not been absent. So far we have imported about 40 accelerators. They are being used in medicine and more and more often in the economy as well. Our clinics are increasingly well-equipped and look more and more like laboratories, while the laboratories unfortunately look more and more like self-managing communities of interest and other administrative institutions."

The installation's construction has been planned in three stages. Production of liquid helium will begin for the first time in the country as early as the beginning of 1986. Vinca will then have a small plant able to produce between 10 and 15 liters of helium per hour. The institute will build this large and modern "refrigerator" together with "Tehnogas" of Belgrade. In the second stage what the specialists call a helium cryogenic center will be built, including a laboratory for the development of superconductive magnets. The superconductive magnet (superconductor technology is a basic technology and will go into many fields) will be ready in 1987. These magnets lose all resistance, but they are fine wires with a diameter of 0.6 mm in which there are no more nor less than 40 filaments (they are even finer than a human hair). In actuality this small wire is a superconductor, since electrical resistance has been eliminated. Magnets which can be held in the hand have been successfully replacing large transformers.

"Minel," "Tehnogas" and the School of Engineering in Novi Sad will produce cryogenic fittings, and "Rade Koncar" and the institute in Vinca the magnets. "Rade Koncar" of Zagreb will use the magnets for generators and motors. Even now it is estimated that the savings will be \$25 per kilowatt. Shipbuilding has also been turning more and more toward electric motors recently, so that the superconductive magnets are expected to be used there as well. Thus a technology is changing after 100 years, since niobium and the superconductive magnets will be used instead of copper and iron. "Energoinvest," "Rade Koncar" and "Minel" are interested in developing and manufacturing the magnets. Cooperation and division of labor in the phase of technological development and also later during production have been agreed on in principle between "Minel" and "Rade Koncar."

Nuclear magnetic resonance (NMR) used in medicine might sound like science fiction to many people. Nevertheless, in the future this will not be fiction, but reality; the institute in Vinca also counts on making a cyclotron, which is said to be the most universal machine. This is the only machine except for the nuclear reactor which can pay its own way. "Rade Koncar" and "Ivo Lola Ribar" are interested in developing accelerator technology and building an isochronous cyclotron and later also a class of specialized medical machines. Each of these organizations is already able to produce 50 percent of the components of the cyclotron.

A cyclotron is a machine to produce short-lived radioactive isotopes. They are used in medicine for diagnosis, and their basic advantage is that the radiation dose is small, and patients are not threatened. This domestic cyclotron will be used by the Military Medical Academy, but the Clinical Center in Belgrade has already contracted to import this machine, which costs about \$1.5 million. Those who are in a position to know say that it is more advantageous to manufacture cyclotrons than, say, refrigerators.

If everything the institute is now planning to have were to be imported, it would cost about \$5 million, but realization of the entire project is estimated at about 1 billion dinars. Even if 80 percent of the resources would be denominated in dinars, since this is a domestic product, and the rest would be imported. The apparatus itself would cost 600 million dinars, installation 200, and infrastructure another 200 million dinars.

The entire job is to be organized by the "Boris Kidric" Institute, "Ivo Lola Ribar," "Minel," "Tehnogas" and the Clinical Center in Belgrade, and it is most likely that a consortium will be created for superconductor and accelerator technology. It is anticipated that the resources to carry out this project would be furnished by the basic and republic associations for science, the Executive Council of the Republic of Serbia, the Yugoslav People's Army, VAM [presumably VMA, Military Medical Academy], "Tehnogas," "Minel," "Ivo Lola Ribar," "Rade Koncar" and the Clinical Center of Belgrade, along with the institute.

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